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PATHOLOGIC FRACTURES

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Very little has been written on the subject of pathologic fractures. A brief but very good discussion was given by Key and Conwell.[1] Pathologic fractures are taken for granted, recognized and forgotten, perhaps justly so. Yet the question often arises whether a pathologic fracture is or is not present and the question must be disposed of before the diagnosis can be satisfactorily settled. Therefore a knowledge of pathologic fractures and of the relative importance of factors in their causation seems to us of sufficient importance to justify a review of such factors.

To this end we, assisted by Drs. Galloway, Dickson, Sawyer and Rhorer, have reviewed the pathologic fractures encountered at the Mayo Clinic from Jan. 1, 1924, to Jan. 1, 1937, a period of thirteen years. We have found records of 660 pathologic fractures encountered in this period. For the purposes of this review we have divided these into three groups: (1) pathologic fractures attributable to metastasis from malignant lesions, (2) pathologic fractures attributable to primary malignant lesions of bone, and (3) pathologic fractures attributable to other causes, such as benign bone tumors and non-neoplastic diseases of bone.

In reviewing these cases, and particularly those of pathologic fracture from metastatic malignant growths, it was obvious that in a great number the vertebrae and ribs were affected. It is well known that many types of metastatic lesions are found in the ribs and vertebrae more commonly than in the other bones. Moreover, a careful review of these cases, and of the roentgenograms, has convinced us that these lesions produce pathologic fractures and they must be regarded as such.

We have not included any cases of tuberculosis of the vertebrae. We believe that occasionally a true pathologic fracture may occur in a tuberculous vertebra but it is so difficult to determine this fact in most cases of tuberculosis that we have not attempted to review any such cases. One case of true pathologic fracture of a clavicle, wherein tuberculosis was proved by biopsy, was included. It should be emphasized that such a condition is rare in our experience and the case is not recorded in any table accompanying this paper.

In discussing the cases in which metastatic malignancy of various types was found, the predominance of lesions of the breast is obvious (table 1). This is as one would expect, because lesions of the breast are known to metastasize to bone frequently and pathologic fractures do occur. The greater number of these are metastases to the ribs and vertebrae, as we have already noted. However, other bones were affected, particularly those of the pelvis, the femur and the humerus. No cases in which metastasis involved the hands or feet were noted. The type of lesion is usually the so-called osteolytic type of metastatic lesion, although occasionally a lesion of the so-called osteoplastic type may be seen. In some instances in which extensive destruction of ribs and vertebrae was all that could be noted, the presence of a pathologic fracture was assumed. Any attempt to draw any actual conclusions as to the percentage of pathologic fractures in these cases seemed unwise for the obvious reason that in most cases of cancer of the breast with metastasis our observation of the patient was but for a short time. In many cases, perhaps all those in which metastasis to bone ultimately occurred, pathologic fractures also occurred. When such fractures involve the thoracic cage they may never be discovered unless carefully made roentgenograms are frequently studied, and this study is not done in most of these cases. Could all these cases have been followed through to the end and the number in which there were pathologic fractures thus determined, a fairly accurate basis for estimation of percentage might have been reached.

Of the cases designated "metastatic malignancy indeterminate" we feel that a number may have been cases of myeloma. These cases were, for the most part, those in which metastatic lesions of bone were recognized, without any discoverable primary malignancy. The patients usually were sent home without long periods of observation because it was recognized that little could be done for them. Unfortunately in few, if any, of these cases were there available reports of necropsy. On the other hand, there were in this group a few cases in which specimens of the lesion in the bone were taken for biopsy, with a resulting diagnosis of "metastatic carcinoma" or "adenocarcinoma," but in which the primary malignant growth could not be found. From the standpoint of exact etiology these cases too cannot be classified because the primary lesion in many of them never can be determined (fig. 1).

The relatively small number of cases of carcinoma of the prostate gland is as one would expect. These metastatic lesions usually are osteoplastic and do not produce enough destruction of bone to lead to pathologic fracture. There may, however, be an occasional metastatic lesion of the osteolytic type, in which fractures may be found, and occasionally a fracture may be seen in a metastatic lesion of the osteoplastic type.

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Read before the Section on Orthopedic Surgery at the Eighty-Eighth Annual Session of the American Medical Association, Atlantic City, N. J., June 11, 1937.

1. Key, J. A., and Conwell, H. E.: The Management of Fractures, Dislocations and Sprains, St. Louis, C. V. Mosby Company, 1934.

Metastatic lesions from hypernephromas (fig. 2) always have been recognized as occurring frequently in bone metastases, and the number here noted as having produced pathologic fractures is relatively high, as the total number of cases of hypernephroma was small.

TABLE 1.—*Metastatic Malignant Lesions Which Caused Pathologic Fracture, Jan. 1, 1924, to Jan. 1, 1937*

Lesions	Patients Who Had Fractures
Carcinoma of breast	127
Metastatic malignancy, indeterminate	79
Carcinoma of the prostate	30
Metastatic hypernephroma	12
Carcinoma of the stomach	10
Carcinoma of the uterus	7
Carcinoma of the thyroid	6
Lymphoblastoma (including Hodgkin's disease)	6
Carcinoma of tongue and lip	5
Carcinoma of the pancreas	2
Carcinoma of the rectum	2
Carcinoma of the liver	1
Carcinoma of the sigmoid	1
Total	278

Among the remaining fractures caused by metastatic malignant lesions, the rather large number from carcinoma of the stomach should be noted. We say "rather large" because of the fact that bony metastasis from carcinoma of the stomach rarely is recognized. Of the latter group of cases, in two the diagnosis was proved by postmortem examination, in four by exploratory abdominal operation, and in the remainder the diagnosis was based on clinical and roentgenologic observations.

In reviewing table 2, which is concerned with cases in which there were primary malignant lesions of bone, the largest number of cases is represented, of course, by osteogenic sarcoma. For this paper we have included all types of osteogenic sarcoma, except endothelioma, in the one group. By this we mean fibrosarcoma, chondrosarcoma, myosarcoma and the mixed types of sarcoma. Again, we would emphasize that in many of these cases pathologic fractures may have appeared at a later date but at the time of our observation the incidence of pathologic fractures was that indicated here (fig. 3).

TABLE 2.—*Primary Malignant Lesions of Bone Which Caused Pathologic Fractures, Jan. 1, 1924, to Jan. 1, 1937*

Lesions	Patients with Fractures	Approximate Percentage of All Patients*
Osteogenic sarcoma	44	11
Myeloma	39	32
Endothelioma (Ewing's tumor)	23	19

* By "all patients" is meant all patients with each condition encountered. Example: Forty-four patients represent 11 per cent of all patients who had osteogenic sarcoma in the designated period.

Myeloma is of course recognized as a frequent cause of pathologic fractures. An extremely destructive lesion of bone probably always causes pathologic fractures if observed long enough. As we have already noted there may be, among the cases of metastatic malignant growths of indeterminate type, several cases of multiple myeloma. In the earlier stages the differential diagnosis often is difficult and unless Bence-Jones proteinuria is discovered, or a specimen is taken for biopsy, the diagnosis can sometimes be made only after prolonged observation, that is, repeated observations over several months (fig. 4).

The relatively large number of cases of fracture associated with endothelioma of the Ewing type speaks for the destructive nature of this lesion. We have not distinguished here between what may be primary Ewing's tumors and what may be metastatic lesions of the same type. Most of the pathologic fractures apparently occurred in primary lesions (fig. 5).

Turning to the benign lesions which caused pathologic fractures (table 3), the largest group is what we call senile osteoporosis. This represents an entity which is now fairly readily recognized. The exact nature of the lesion, in our opinion, never has been accurately described. Schmorl [2] has given an accurate description of the pathology of this condition, pointing out that there are two essential conditions: first, compression fracture and, second, ballooning of the disks, which is made possible by softening of the vertebrae. To the resulting misshapen vertebrae he has given the name of "fish-tail vertebrae." Schmorl stated that there are various etiologic factors: different disturbances of nutrition, changes in mode of living or of the internal secretion and constitutional anomalies.

Judging from our observations, patients who have senile osteoporosis usually have complained of severe back pain. Often the onset has followed a slight injury

TABLE 3.—*Benign Lesions Which Caused Pathologic Fractures Jan. 1, 1924, to Jan. 1, 1937*

Lesions	Patients with Fractures	Approximate Percentage of All Patients*
Senile osteoporosis	92	84
Osteitis fibrosa cystica	32	46
Giant cell tumor	27	21
Osteogenesis imperfecta	27	100
Osteomyelitis	23	1
Paget's disease	20	8
Bone cyst	13	10
Tabes dorsalis	12	0.5
Chondroma	11	4
Osteoporosis of disuse	6	..
Hyperparathyroidism	4	22
Osteomalacia	4	13
Hemangioma	3	..
	269	

* By "all patients" is meant all patients with each condition encountered. Example: thirty-two patients represent 46 per cent of all patients who had osteitis fibrosa cystica in the designated period.
† Percentage based on count of all cases of osteoporosis.

and in many instances there have been several injuries. Some round back deformity often develops and gradually may increase until, in some instances, the stature becomes shortened. There is usually some degree of muscular spasm which may, in time, become very marked; in many instances the disability becomes great, some of the patients becoming bedridden. The lower age limit is usually 50 years; most of the patients are more than 60. However, we have seen at least one patient whose age was less than 40 years.

The characteristic roentgenographic picture in senile osteoporosis is diffuse osteoporosis, particularly of the vertebrae and pelvis, with compression fractures and ballooning of the intervertebral disks. The number of such compression fractures varies with the extent and severity and probably with the duration, of the disease, as well as with the incidence of injury.

Many patients with senile osteoporosis have been suspected of having parathyroid tumors and exploratory operations have been performed without such tumors being found. However, as time goes on and experience accumulates, the differential diagnosis between this condition and the parathyroid tumor osteitis of von Recklinghausen is fairly simply made. In senile osteoporosis there is not any significant change in the chemical elements of the blood. Definite associated disease cannot

2. Schmorl, Georg: Die Gesunde und Kranke Wirbelsäule im Röntgenbild, Leipzig, Georg Thiem, 1932.

be found consistently. One can quiz such patients regarding diet and usually can convince onself of a deficient intake of calcium. However, we feel that probably in many persons who are deficient in intake of calcium this disease never develops. Many important facts regarding this condition are yet to be determined.

The importance of senile osteoporosis as a clinical entity is evident at least in the fact that in this series

Fig. 1.—Pathologic fracture in a case of metastasis from a carcinoma of the thyroid.

of cases, except for metastasis from carcinomas of the breast, it was the most common cause of pathologic fractures. That it produces disability, often severe enough to make the patient an invalid, is obvious. Many patients are less severely disabled but in all cases the disability is pronounced and pain is persistent when the patient is up and about.

Usually the pain of senile osteoporosis is relieved by rest. In our experience, the condition of many patients has been improved by persistent use of a diet high in calcium or by administration of calcium, together with some form of vitamin D. At the same time, we have used a Taylor brace or heavily stayed corset to support the spinal column. Such treatment must be kept up for many months to accomplish any improvement. The subjective improvement has been more striking than the objective improvement as oftentimes, in spite of apparently genuine subjective improvement, little evidence of actual improvement is to be found in the roentgenograms.

We find that next to the largest group of these benign lesions is osteitis fibrosa cystica. It is not our purpose to discuss the differential diagnosis of osteitis fibrosa cystica, von Recklinghausen's type of osteitis fibrosa, which we have here designated as "hyperparathyroidism," giant cell tumor, and bone cyst. We admit the difficulty in this differential diagnosis at times. In this series we have attempted to group them as indicated. Among those lesions designated as osteitis fibrosa cystica are, for the most part, the multiple lesions usually found in childhood. Such lesions often involve the shafts of the long bones sufficiently to cause weakening such that fractures are easily incurred.

Giant cell tumors often are causes of pathologic fractures. One who is familiar with this lesion knows that as they increase in size they often cause thinning of the cortex to the point at which pathologic fracture is inevitable. Occasionally the portion of a joint surface adjacent to the lesion may cave in and produce a fracture.

In considering osteogenesis inperfecta we have not attempted to distinguish the variously designated causes of brittle bones, such as osteopsathyrosis, fragilitas ossium, brittle bones and blue sclerae, and osteogenesis imperfecta. To us it seems that the dividing line between any two of these groups is not clearly defined and for purposes of this presentation the lesions can be grouped as one. The underlying cause may be that described by Key;[3] namely, hereditary hypoplasia of the mesenchyme. This seems to us the most logical concept when the pathologic picture is considered. From the standpoint of this paper, the important thing to realize is that probably, in all these cases, at some time or other pathologic fractures occur. Our patients did not all present themselves at the time when fracture occurred but all gave histories of having had fractures at some time.

In the presence of osteomyelitis, fractures are often hard to recognize. There are in general two types of pathologic fracture in these cases; namely, those that result from extensive destruction of the bony cortex

Fig. 2.—Pathologic fracture in a case of metastasis from a hypernephroma.

and those that occur as a result of weakening of the bone by surgical removal of bone. The former group is by far the largest (fig. 6). The possibility of postoperative fracture must always be considered in cases of osteomyelitis and proper support must be given when extensive surgical procedures are performed.

3. Key, J. A.: Brittle Bones and Blue Sclera, Arch. Surg. 13: 523-567 (Oct.) 1926.

Paget's disease is not often recognized as a cause of pathologic fracture but among our cases we found twenty in which the fracture seemed unquestionably pathologic. That weakening of the bone by the disease may reach the point at which a pathologic fracture may occur is obvious; that such fractures do not occur more often may be unusual.

Fig. 3.—Pathologic fracture in a case of osteogenic sarcoma.

Bone cysts, just as osteitis fibrosa cystica and giant cell tumors, cause so much thinning of the cortex of the bone that fractures may easily ensue. Usually the fracture occurs with little or no strain or force; just a slight twist or throw of the extremity will produce the fracture. When the cysts are large, the best results usually are obtained by operation and bone graft. Some smaller cysts undoubtedly will heal, with diminution of the size of the cyst after a pathologic fracture. With the larger ones, however, collapse of the bone usually is not a sufficient stimulus to formation of bone to promote complete healing of the cyst.

Tabes dorsalis long has been recognized as a cause of pathologic fracture. Just what the underlying pathologic condition is in these cases never has been determined. We recognize the fact that diminished sensation is commonly found but this alone does not seem to be sufficient. Whatever there is in the character of this bone which leads to Charcot joints probably leads also to pathologic fracture, for there is much similarity between the two processes.

The majority of chondromas which lead to pathologic fractures are those of the phalanges and metacarpal or metatarsal bones. Such chondromas are often diagnosed as cysts, but in several cases of this group the lesion was excised and was replaced by bone grafts. In nearly all instances the diagnosis proved to be chondroma. Thus it may be said that any pathologic fracture which occurs through an apparently cystic lesion in a phalanx or metacarpal or metatarsal bone may well be considered a chondroma until it is proved otherwise. Pathologic fractures of the larger bones in the presence of the common type of osteochondroma are exceedingly rare. They may occur, however, in association with the so-called enchondroma, wherein the tumor is largely within the cortical bone.

Osteoporosis of disuse is well recognized as an occasional cause of pathologic fractures. The number of cases in table 3 seems small, and it is likely that we have failed to gather all cases. Such fractures may occur whenever long disuse of a limb has produced a sufficient amount of disuse atrophy. The fractures are often subperiosteal or of the greenstick type and thus they may not be recognized.

Hyperparathyroidism, or osteitis fibrosa of the von Recklinghausen type, has come to be recognized as a clinical entity and may produce pathologic fractures in the more advanced cases. Often the loss of calcium is so great that clear roentgenograms are nearly impossible to obtain.

Osteomalacia, when the term is strictly limited to lesions of pregnant or lactating women, represents a small group in our experience. Recognition of the disease in these instances probably is not difficult. To us it seems that there may be some relationship between this condition and senile osteoporosis. In osteomalacia one usually sees a marked deformity of the pelvic bones. The Looser zones which are seen in this condition are probably not pathologic fractures but defects in ossification, or regions in which there is absorption of the osseous substance of the bone. The zones usually are symmetrical.

Hemangiomas, in our cases, were all of the vertebrae. Such a lesion of the vertebrae has been fairly

Fig. 4.—Pathologic fracture in a case of multiple myeloma.

accurately described and usually it is recognized by roentgenologists as a fairly typical lesion. In none of these cases has biopsy been done to prove the identity of the lesion but they were all rather typical. Pathologic fractures may occur when the lesions are far advanced; usually the fracture is of the compression type and does not cause much injury.

Remaining to be mentioned are one case each of neurofibroma, post-irradiation osteitis, pituitary basophilism, purpura haemorrhagica, transverse myelitis, neurocytoma and tuberculosis. The last case was mentioned early in this paper. Fracture following irradiation for a malignant condition of the pelvis is deserving of comment. There may be more of these cases among our cases in which there is a malignant condition of the pelvis than we have encountered in this study. The whole subject has been well presented in a paper by Dalby, Jacox and Miller.[4] Their description of the underlying pathologic condition leaves a little doubt as to the actual nature of the lesion but the etiologic factor seems to be well founded. The compression fracture of a vertebra which occurred in a case of pituitary basophilism may have been purely on a basis of osteoporosis. The case in which the fracture was attributable to purpura haemorrhagica was most unusual. A huge tumor of the thigh developed after an injury, with fracture and subsequent marked absorption of bone. Exploration of the tumor by hollow needle disclosed the presence only of blood clot. The presence of a general blood dyscrasia was recognized and a diagnosis of purpura haemorrhagica was made. Splenectomy was advised but the patient refused operation and subsequently there has been little change. We believe the condition of the bone to be the result of an unusual type of pressure erosion, however, probably incidental to the blood dyscrasia.

Fig. 5.—Pathologic fracture in a case of endothelioma (Ewing type).

We have tabulated and briefly reviewed the cases of pathologic fracture seen at the Mayo Clinic over a period of thirteen years. The relative importance of various diseases as causes of pathologic fractures is obvious in the tables. As an aid to diagnosis of a case, when a pathologic fracture is the presenting lesion, these tables may be of some help.

ABSTRACT OF DISCUSSION

DR. JOSEPH A. FREIBERG, Cincinnati: In this comprehensive discussion of pathologic fractures Dr. Ghormley and his associates have brought to our attention a subject which is often considered unworthy of serious study. It is my impression that, when a pathologic fracture is found, too frequently it is decided by the physician in charge that the patient's days are numbered, and he is made comfortable by splints and medication and not adequately studied. In this group of orthopedic surgeons it is realized that the presence of a pathologic fracture should stimulate one to thorough study of the case, because in many of these cases we can be of great assistance. The authors have shown that the patient may have from one to many years of comfort and often physical activity. The group of cases of senile osteoporosis has interested me because I have seen a great number of them and because they are not recognized as frequently as they should be by the general practitioner. The picture of an older person gradually losing height and developing a severe dorsal kyphosis is accepted as undergoing changes of old age. The fact that the patient may have severe localized pain in the back is not considered or studied sufficiently.

DR. PHILIP LEWIN, Chicago: I was impressed with the large number of cases presented, 660 cases in thirteen years. The authors have covered every angle of the subject. I was impressed with the large percentage of primary tumors outside the usual ones, such as tumors of the breast, uterus, thyroid, prostate and adrenal; that is, the large number that occurred in the gastro-intestinal tract or the liver, pancreas, stomach or intestine. I am sorry the authors did not get a chance to talk about their cases of Paget's disease. I remember one woman with Paget's disease who did not know she had the disease, until she had a pathologic fracture. At open operation I applied hard rubber strips as splints and maintained their position by Putti bands. She obtained perfect consolidation. These fractures have been called greenstick fractures, which they are not, as can be seen from the pictures. Codman's term rotten wood fracture is certainly better than the other. I was interested in the cases of osteogenesis imperfecta, having a patient who is about 50 years of age, which is quite an advanced age for these patients. Her height is 37 inches (94 cm.). She has had 112 fractures but is now teaching in a school for crippled children. I was glad that the authors presented some cases of senile osteoporosis and that Dr. Freiberg discussed them. I have had a number of cases in an interesting group in which there was pain in the lower part of the back, the middle of the back and high in the back, but especially in the middle and lower part of the back, where a combination of proper bracing following bed treatment and large doses of calcium intravenously combined with either roentgen or radium irradiation, was followed by complete relief.

Fig. 6.—Pathologic fracture in a case of osteomyelitis.

DR. RALPH K. GHORMLEY, Rochester, Minn.: The subject, as Dr. Freiberg said, is one that is oftentimes more or less forgotten, but so many of these cases come to us with a fracture as the primary lesion that a little more ability in recognizing the type of pathologic fracture might be of help in proper diagnosis and the institution of proper treatment.

4. Dalby, R. G.; Jacox, H. W., and Miller, N. L.: Fracture of Femoral Neck Following Irradiation, Am. J. Obst. & Gynec. 32:50-59 (July) 1936.

LESIONS OF THE BRAIN FOLLOWING FEVER THERAPY

ETIOLOGY AND PATHOGENESIS

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DETROIT

In 1935 the literature related to the pathologic changes incident to exposure to heat was reviewed, and the lesions produced by accurately controlled fever therapy in two human beings and twenty experimental animals were reported.[1] Briefly, the pathologic changes noted may be summarized as follows: Gross changes consisted of engorgement and congestion of blood vessels, degeneration and hemorrhage of the adrenals, hemorrhages in the brain, marked edema and congestion of the lungs, contraction and bloodlessness of the intestine and parenchymatous degeneration of the liver and kidneys. Microscopically, acute passive congestion of all the organs and tissues and cellular degeneration and hemorrhages of varying degree in the adrenals, liver, brain, lungs and kidneys were visible.

At the time of the previous report no attempt was made to determine the etiology and the pathogenesis of the lesions described; it was assumed that they were due to the heat applied, and it was pointed out that the use of certain groups of analgesic drugs seemed to be a contributing factor.

When I reviewed the monograph of Courville,[2] "Asphyxia as a Consequence of Nitrous Oxide Anesthesia," the striking parallelism between the lesions of the brain which he ascribed to asphyxia and those observed after fever therapy suggested that asphyxia or anoxia was at least one of the factors in the causation and development of the pathologic changes associated with exposure to heat. This suggestion immediately raised the following questions:

1. Is this apparent parallelism confirmed or disproved by histologic examination of the brain and other organs?
2. Are the physical and the biochemical disturbances associated with fever therapy conducive to anoxia?
3. Does anoxia occur during fever therapy and if so to what degree?

This study was undertaken in an effort to answer these questions.

MATERIAL

In addition to a review of the two cases (cases 1 and 2) and the experiments on twenty animals previously reported, one more case and experiments on fifteen animals are included in this study.

CASE 3.—*History.*—W. L., a white man, aged 31, first seen on July 23, 1934, had been having periodic attacks of iritis for the past two years. One year previous to the onset of iritis he was confined to bed for several weeks with streptococcic sore throat. The general physical examination showed nothing significant except marked sensitivity to Streptococcus viridans (stock vaccine) and to nonhemolytic streptococcus obtained from stool culture. The tuberculin test was negative until 0.1 mg. of old tuberculin was used. (At another clinic the patient later gave a marked reaction to 0.001 mg. of old tuberculin.) Serologic examination gave negative results. Examination of the eyes revealed marked bilateral iridocyclitis, caused, it was thought, by a systemic bacterial infection. That it was a tuberculous process was also considered possible.

Treatment consisted of injection of autogenous vaccine and tuberculin, plus local medication to the eyes. The response was indifferent.

Beginning July 8, 1935, the patient was given a series of six fever treatments at intervals of from four to seven days, for five hours each, with the temperature varying from 103.2 to 107.4 F. Sodium amytal and pantopon (the hydrochlorides of the alkaloids of opium, principally morphine) were the sedatives used in five treatments and paraldehyde in the sixth. After these treatments the condition of the eyes improved temporarily. The patient was given a rest period until March 3, 1936, when he was given another series of fever treatments. The intervals between treatments were from five to seven days, except that between the last two treatments, which was thirteen days. The first five treatments each lasted five hours, and the temperature ranged from 104.8 to 107.6 F. The sixth treatment lasted six hours, and the temperature ranged from 105 to

Fig. 1 (case 3).—Section from the cortex under medium power showing unusually wide perivascular spaces and distorted, shrunken and pyknotic pyramidal cells.

107.2 F. Sedormid (allyl-isopropyl-acetyl-carbamide) and pantopon were the basic sedatives except during the last treatment, in which 5 grains (0.3 Gm.) of pantopon and 1½ grains (0.1 Gm.) of pentobarbital sodium were given.

The patient tolerated the first thirteen treatments quite well, although he had some nausea and vomiting. The blood pressure was 114/60 at the beginning of the last treatment and 68/20 at the conclusion. At 9 p. m. he was comfortable; the blood pressure was 90/68. At 6:30 a. m. the following morning he became apneic and was given artificial respiration and supportive treatment, with some improvement. At this time the left pupil was dilated, respiration was stertorous and all deep reflexes were absent. At 10 a. m. his condition was unchanged. The blood pressure was 142/85, the color good, the right side of the face weak, the limbs flaccid and the deep reflexes active and equal. The carbon dioxide combining power was 35.3 per cent. The patient died at 1:45 p. m., twenty hours after his last treatment. The clinical diagnosis was cerebral hemorrhage.

From the Department of Pathology, Henry Ford Hospital.
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1. Hartman, F. W., and Major, R. C.: Pathological Changes Resulting from Accurately Controlled Artificial Fever, Am. J. Clin. Path. **5**:392 (Sept.) 1935.
2. Courville, Cyril B.: Asphyxia as a Consequence of Nitrous Oxide Anesthesia, Medicine **15**:179 (May) 1936.

Necropsy.—The body was well nourished and well developed. The skin was livid and congested. The lips and fingernails showed marked cyanosis. The peritoneum was smooth and the abdominal organs of the usual size. The pleural cavities were free from fluid and adhesions. The thymus gland had two lobes measuring 8 by 5 by 1 cm. The pericardial sac contained 25 cc. of clear fluid.

The heart weighed 300 Gm. Numerous small petechial hemorrhages were seen throughout the epicardium. The valves were intact throughout. The coronary vessels were patent. The left lung weighed 350 Gm. and the right 400 Gm. The pleural surfaces were smooth. The parenchyma in the upper and the middle lobe of the right lung were air containing. The lower lobes were increased in density, dark reddish brown and atelectatic. On section through the lower lobes, much bloody fluid was expressed on pressure, but no air.

The spleen weighed 185 Gm. The pulp was soft and the lymphoid tissue abundant. The liver weighed 1,580 Gm. The capsule was smooth and the parenchyma reddish brown. The usual architecture was well preserved. The gallbladder emptied readily. The walls were of the usual thickness and the mucosa intact. The pancreas was of the usual size, firm, distinctly lobulated and grayish pink. The adrenals were of the usual size and shape. On section, the cortical tissue was seen to be light grayish yellow-white and the medulla well preserved and dark brownish yellow. The left kidney weighed 125 and the right 120 Gm. The cortical surface was smooth, the cortex measuring from 5 to 7 mm., and the usual architecture well made out. The urinary bladder contained 500 cc. of clear urine. The prostate was of the usual size. The stomach was markedly dilated with fluid and gas. The mucosa was intact. The remainder of the gastrointestinal tract was not remarkable.

The calvarium was of the usual thickness. The pia and the arachnoid were delicate and glistening. The convolutions were broad and flat, while the sulci were narrowed. The right lobe of the cerebellum was a soft hemorrhagic necrotic mass. There was marked molding of the cerebellar peduncles. Minute examination of the vessels in the circle of Willis showed no abnormalities and no evidence of thrombi or emboli. Bacteriologic examination showed no growth.

Microscopic Examination: The thymic parenchyma was well preserved, with the usual small lymphoid type of cell and Hassel's corpuscles in abundance. There was little fatty tissue. Sections from the myocardium showed muscle fibers of average size and shape and no evidence of degeneration. In sections from the lower lobes of the lungs, alveoli were filled with fluid and blood. The bronchioles in the same areas showed polymorphonuclear leukocytes. The architecture of the spleen was usual, but there was an unusual amount of yellowish brown blood pigment. The mucosa of the intestine was intact and without evidence of hemorrhage. The pancreas contained the usual number of islands of Langerhans, which were well preserved. The cytoplasm of the liver cells was granular, and the nuclei were pyknotic. The sinusoids were engorged. The adrenals showed marked hyperemia but no hemorrhage or necrosis. The tubular epithelium of the kidneys contained much granular degeneration and pink-staining amorphous material. The glomerular tufts were hyperemic, but no hemorrhage was seen.

Sections from the cerebrum showed marked edema, with unusually large clear spaces about the smaller vessels and about many of the pyramidal cells. The pyramidal cells themselves in many instances took the stain poorly. The nuclei were broken up, and the Nissl bodies could not be made out. Sections from the cerebellum in the better preserved left lobe showed marked congestion and some diffuse hemorrhage. The Purkinje cells were poorly staining and the nuclei pyknotic. In the right, necrotic lobe the tissue took a homogeneous pink stain, although nuclei here and there stained poorly. There was extensive hemorrhagic infiltration. No evidence of thrombosed or occluded blood vessels could be made out.

Anatomic Diagnosis: The diagnosis was acute iritis with loss of vision; necrosis of the right lobe of the cerebellum, with hemorrhage; edema and congestion through the cerebrum and cerebellum; degeneration of cell groups throughout the cerebrum and cerebellum, especially of the pyramidal and Purkinje cells; atelectasis and hemorrhage (hemorrhagic pneumonia) of the lower lobes of both lungs; old calcified tuberculosis of the left lung; dilatation of the stomach; parenchymatous degeneration of the liver and kidneys.

ANIMAL EXPERIMENTS

The technic of the animal experiments was similar to that previously reported. The temperatures induced ranged from 104 to 108 F. and the duration from four to fourteen hours. When the animals were removed from the Kettering hypertherm, arterial and venous blood was obtained immediately under oil, by incision and puncture of the femoral vessels, for examination of the oxygen saturation. When the animals died or were killed, autopsy was done at once, and tissues for microscopic examination were placed in 10 per cent solution of formaldehyde.

Fig. 2.—Section under medium power from the base of the brain of the animal described in the representative protocol, showing widely dilated perivascular spaces and poorly staining, shrunken ganglion cells and necrosis.

REPRESENTATIVE PROTOCOL

A bitch weighing 16 Kg., with a rectal temperature of 102.4 F., was given 12 grains (0.8 Gm.) of sodium amytal intraperitoneally and placed in the hypertherm at 9:15 a. m. The temperature of the cabinet was 165 F. and the humidity 45 per cent. After an hour and twenty-five minutes of treatment, the rectal temperature had risen to 104.6 F. At this time 3 cc. of paraldehyde was given by stomach tube. The rectal temperature was 107.2 F. at 1:30 p. m., averaging 106 F. throughout the five and a quarter hours of treatment. Physiologic solution of sodium chloride was given freely by mouth throughout the treatment. On removal, the animal was in good condition, with rapid respirations and a strong bounding pulse. The wrappings were left in place. With procaine hydrochloride anesthesia the femoral vessels were exposed, and blood was removed under oil from both artery and vein. Examination of the arterial blood showed an oxygen content of 15.59 volumes per cent, an oxygen capacity of

26.65 volumes per cent and an oxygen saturation of 59 per cent. Examination of the venous blood showed an oxygen content of 11 volumes per cent and an oxygen saturation of 41 per cent. The wrappings were left in place until 11 p. m., but the temperature remained elevated and was 106 F. (rectal) when the animal died at 9 a. m. the following morning.

The autopsy, begun at 9:20 a. m., showed marked edema and hemorrhagic consolidation of the lungs, marked engorgement of

Fig. 3 (case 1).—Section from the base of the brain under low power showing a large area of devastation necrosis.

all tissues and outspoken hemorrhage throughout the brain. All the histologic changes detailed hereafter were exaggerated as compared with those in the other animals studied.

COMMENT

Is the apparent parallelism between the pathologic changes due to fever therapy and those due to anoxia confirmed or disproved by histologic examination of the brain and other organs? The perivascular spaces and the perineural spaces of the brain in all three cases of fever therapy and in the brains of all the animals which survived the fever therapy were unusually wide when compared with those of controls (fig. 2). This condition was reported by Courville,[2] Gildea and Cobb,[3] Landis [4] and others, as resulting from anoxia produced in various ways, both clinically and experimentally. All investigators agree that cerebral edema is a constant effect of anoxia in the brain. Landis,[4] by demonstrating that fluid passes through capillary walls at four times the normal rate after only three minutes' lack of oxygen, furnished the probable explanation.

In animals surviving for only a few hours after the completion of fever therapy, the most characteristic change seen in the pyramidal, ganglion and Purkinje cells was distortion, shrinkage and homogeneous dark staining. In addition, the processes were shrunken, lightly staining and pointed. In the human beings and in the animals surviving for a longer period, the same type of cells (cresyl violet stain), especially the cytoplasm, stained lighter, and the chromidial substance was pushed to the periphery, clumped and lightly staining. The nucleus was small and pyknotic. This group showed also many small rounded spaces throughout the base of the brain, indicating the degeneration and loss of individual cells.

The necrosis of whole groups of cells and their glial tissue, referred to as "devastation areas" by Gildea and Cobb,[3] was a characteristic lesion in the human brains, involving the base in two and one lobe of the cerebellum in the third (figs. 3 and 4). Further, the animals that survived twenty-four hours or longer showed similar but less extensive lesions. This massive necrosis was accompanied by hemorrhage in all instances, being most striking in the human brains.

The minute cellular changes and the areas of necrosis observed in these brains after fever therapy are the histologic changes observed after cerebral anoxia produced by ligation of blood vessels, carbon monoxide poisoning and asphyxia.

Are there physical and biochemical disturbances associated with fever therapy conducive to anoxia? As pointed out by Barcroft,[5] anoxia is produced by alterations in both the supply and the utilization of oxygen, and it is only with these alterations in mind that one

Fig. 4 (case 3).—Section from the cerebellum under low power showing necrosis, extensive hemorrhage and shrunken, pyknotic Purkinje cells.

can deal with the problem to the best advantage. Hence the following definitions (Peters and Van Slyke [6]):

1. Anoxic anoxia: If there is a deficit in the arterial oxygen tension at which the blood delivers oxygen to the cells, the cells are compelled to work at a lower pressure.

3. Gildea, Edwin F., and Cobb, Stanley: The Effects of Anemia on the Cerebral Cortex of the Cat, Arch. Neurol. & Psychiat. **23**: 876 (May) 1930.

4. Landis, E. M.: Micro-Injection Studies of Capillary Permeability: III. The Effect of Lack of Oxygen on the Permeability of the Capillary Wall to Fluid and to the Plasma Proteins, Am. J. Physiol. **83**: 528 (Jan.) 1928.

5. Barcroft, Joseph: Anoxemia, Lancet **2**: 485 (Sept. 4) 1920.

6. Peters, John P., and Van Slyke, Donald D.: Quantitative Clinical Chemistry, Baltimore, Williams & Wilkins Company, 1924, vol. 1, p. 478.

2. Anemic anoxia: The same result follows if, because of lack or inactivation of hemoglobin, the volume percentage of oxygen that can be carried by the arterial blood is low; in this case removal of the usual volume percentage of oxygen from the blood by the cells is accomplished by an abnormally great fall in tension.

3. Stagnant anoxia: Even when the arterial blood has an entirely normal oxygen content and pressure, anoxia in the cells occurs if the circulation is so retarded

TABLE 1.—*Animals Receiving Fever Therapy*

Date, 1937	Number	Duration of Treatment, Hours	Temperature, F.		Arterial Blood			Venous Blood: Oxygen Content, Volumes per Cent	Comment
			Beginning	End	Oxygen Content, Volumes per Cent	Oxygen Capacity, Volumes per Cent	Oxygen Saturation, Percentage		
5/11	3	4½	102.2	108.0	10.84	17.85	60.0	.....	Died 5 p.m.
5/15	..	4	100.4	108.0	12.55	20.14	61.0	.....	Died 5 p.m.
5/13	4	4	101.2	107.4	12.18	14.86	82.0	.....	
5/13	5	4	100.6	108.0	10.31	17.14	60.0	.....	Died same day
5/15	4	5	102.2	107.0	20.90	25.14	83.5	.....	
5/15	4	5	102.0	107.0	16.65	22.95	72.5	.....	
5/17	4	5	102.0	105.2	18.30	21.06	86.6	14.80	
5/17	8	4½	101.4	108.0	13.07	18.67	70.0	9.85	
5/18	9	5	102.0	106.0	14.42	22.98	63.0	11.47	Blood sugar, 85 mg.; died during night
5/18	10	4	101.0	105.8	19.12	24.44	78.0	13.53	Blood sugar, 60 mg.
5/22	9	5	101.8	107.6	12.68	19.10	66.5	.....	
5/22	10	5	100.0	106.0	19.87	25.80	77.0	15.67	
5/25	12	5	101.0	107.0	15.81	21.39	72.0	11.11	
5/25	11	5	102.4	106.6	15.95	26.65	59.0	11.60	Died following morning

that the oxygen is not transported rapidly enough to maintain its optimum tension in the active tissues.

4. Histotoxic anoxia: With the supply of oxygen perfectly normal in all respects, anoxia may nevertheless occur if the tissue cells are poisoned in such a manner that they cannot use the oxygen properly.

Early biochemical studies [7] showed that alkalosis occurs soon after pyretotherapy is begun, the p_H of the blood averaging 7.6 and the carbon dioxide combining power being reduced to 40 volumes per cent. This results from the rapid breathing and blowing off of carbon dioxide. If at the same period the respirations are shallow, little fresh air gets into the alveoli of the lungs because of the dead space in nose, trachea and bronchi, and the result is decreased oxygen saturation of the arterial blood. The alkalosis is important, since the slightly alkaline hemoglobin compound gives up its oxygen less readily to the tissues than normal hemoglobin.

Another contributing factor is the increased temperature of the blood, which Barcroft [8] has shown decreases the oxygen saturation. The same increase in temperature increases the basal metabolic rate (Simpson [8]) 5.5 per cent for each degree, giving a rate of + 40 per cent with a temperature of 106 F. Increased metabolism means a corresponding demand for oxygen in the tissues.

Meakins and Davies [9] found the rate of local blood flow through the capillaries so rapid when the arm is placed in hot water that there is little difference in oxygen saturation between the arterial and the venous blood. Kissin and Bierman,[10] Tenney [11] and Bazett [12] found that the velocity of blood flow increases during fever therapy. Figures from this series of nineteen experiments show that there is less difference in oxygen saturation between blood from the femoral artery and blood from the femoral vein after fever therapy than in the normal subject. The oxygen unsaturation of the tissue gradually mounts as long as the propelling force responds. If this force is indicated by rapid weak pulse and falling blood pressure, the accelerated velocity of the blood may be replaced by comparative stagnation in the dilated vessels, resulting also in oxygen unsaturation because the transportation is too slow to maintain the optimum oxygen tension in the tissues.

As noted in earlier communications,[13] the type of sedative used seems to have a bearing on the percentage of cyanosis, vascular and respiratory collapse and mortality. Keilin [14] has shown experimentally that cyanide, alcohol, acetone and ethyl urethane stabilize the oxycytochrome of the tissues so that oxygen is not readily removed. More recently the English workers Jowett and Quastel of Cambridge University [15] have shown that phenobarbital, chlorbutanol and evipan (evipal soluble) decrease or abolish oxygen utilization by the brain. The administration of oxygen during fever therapy in the series here reported tended to reduce the sedative effect of sodium amytal. Enough separate factors tending to produce anoxia during fever therapy to justify an affirmative answer to the second question have been presented.

Does anoxia occur during fever therapy and if so to what degree? The answer to this third question is found in tables 1 and 2.

TABLE 2.—*Normal Animals*

Date, 1937	Number	Duration of Treatment, Hours	Temperature, F.		Arterial Blood			Venous Blood: Oxygen Content, Volumes per Cent	Comment
			Beginning	End	Oxygen Content, Volumes per Cent	Oxygen Capacity, Volumes per Cent	Oxygen Saturation, Percentage		
5/19	1	..	.....	.....	21.66	24.40	87.0	18.40	
5/20	2	..	.....	.....	20.67	24.14	86.0	14.80	
5/21	3	..	.....	.....	20.52	23.86	86.5	17.50	
5/21	4	..	.....	.....	21.71	25.65	86.6	13.84	
Animal receiving 15 grains of sodium amytal									
5/27	..	..	.....	.....	22.10	24.79	89.0	17.62	
Animals receiving oxygen throughout fever therapy									
6/1	10	6	102.2	107.2	20.55	23.18	88.5	.....	Oxygen (6 liters per minute) administered throughout treatment
6/3	13	6	101.0	105.0	19.18	24.67	78.0	.....	
6/3	14	6	101.2	106.4	19.60	23.12	85.0	.....	

In table 1 it is to be noted that only one animal maintained a normal saturation of the arterial blood and that it had relatively low temperatures throughout treatment. Five animals had the oxygen saturation of

7. Bischoff, Fritz; Long, M. Louisa, and Hill, Elsie: Studies in Hyperthermia: II. The Acid Base Equilibrium in Hyperthermia Induced by Short Radio Waves, J. Biol. Chem. **90**: 321 (Jan.) 1931.

8. Simpson, Walter: Studies on the Physiology of Fever, J. A. M. A. **100**: 246 (Jan.) 18) 1936.

9. Meakins, J., and Davies, H. W.: Observations on the Gases in Human Arterial and Venous Blood, J. Path. & Bact. **23**: 451 (Dec.) 1920.

10. Kissin, Milton, and Bierman, William: Influence of Hyperpyrexia on Velocity of Blood Flow, Proc. Soc. Exper. Biol. & Med. **30**: 527 (Jan.) 1933.

11. Tenney, C. F.: Artificial Fever Produced by the Short Wave Radio and Its Therapeutic Application, Ann. Int. Med. **6**: 457-568 (Oct.) 1932.

12. Bazett, H. C.: Circulation in Pyrexia, J. A. M. A. **97**: 1271-1274 (Oct. 31) 1931.

13. Dowdy, A. H., and Hartman, F. W.: Preparation of Patients for Fever Therapy with Special Reference to Sedation and Fluid Intake, to be published.

14. Keilin, D.: On Cytochromes: A Respiratory Pigment Common in Animals, Yeast and Higher Plants, Proc. Roy. Soc., 1925.

15. Jowett, Maurice, and Quastel, Juda H.: The Effects of Narcotics on Tissue Oxidations, Biochem. J. **31**: 565 (April) 1937.

the arterial blood decreased to below 65 volumes per cent, and all died shortly after the completion of therapy.

Table 2 shows the oxygen saturation of the arterial blood in normal animals, the effect of sodium amytal and the effect of the administration of oxygen during fever therapy. Sodium amytal in common with other sedatives apparently affects the cells directly, decreasing their utilization of oxygen, and has a selective action on the brain, since the oxygen saturation of the femoral artery is normal. The oxygen saturation of the arterial blood may be kept at normal levels by the continuous administration of oxygen during fever therapy.

SUMMARY AND CONCLUSIONS

1. Constant and severe anoxia is shown by the decreased oxygen saturation of the arterial blood and the low oxygen content of the venous blood in animals after fever therapy. Animals having a saturation below 65 volumes per cent died.

2. Factors producing anoxia during fever therapy are alkalosis, accelerated blood flow, increased temperature of the blood and increased demand for oxygen in the tissues. The last results from the increased metabolism and the depressed utilization of oxygen of the tissues, especially the brain, due to the histotoxic effect of the sedatives used.

3. The pathologic changes resulting from fever therapy are typical of anoxia produced in other ways, such as prolonged asphyxia, carbon monoxide poisoning and acute alcoholism.

4. Anoxia may be prevented by the administration of oxygen throughout fever therapy, provided respiration and blood pressure are maintained at reasonable levels.

5. The best method of administering oxygen during fever therapy is the nasal catheter; it allows the patient to ingest fluids, an electric fan to be used, ice to be applied to the face and the patient to be moved. Combinations of oxygen and carbon dioxide may be used to counteract the alkalosis and apnea.

ABSTRACT OF DISCUSSION

DR. WALTER M. SIMPSON, Dayton, Ohio: During the past six years my associates and I have subjected some 800 patients to about 25,000 hours of artificial fever therapy. With the exception of one patient with fulminating meningovascular syphilis and rapidly progressive blindness, who was treated with full knowledge of the grave risk involved, and who died thirty-six hours after a single short treatment, no deaths have occurred that could be attributed to the artificial fever treatment. All of our patients have been subjected to a thorough diagnostic survey by the physicians in the Department of Fever Therapy Research to determine their eligibility for fever therapy. Special studies are made of the cardiac, vascular and renal functions, including electrocardiographic studies, basal blood pressure determinations, renal function tests and blood chemical analyses. It is our practice to determine the individual patient's tolerance for artificial fever therapy by giving a short trial treatment before undertaking a course of treatments requiring high temperature levels over a long period. This report again emphasizes the fact that artificial fever therapy by physical means is not a simple undertaking. In the hands of unskilled or unscrupulous persons it is fraught with danger. Even in the hands of skilled workers, as in the present instance, occasional accidents have occurred. There is urgent need for fundamental studies of the type described by Dr. Hartman, in order that the margin of safety may be widened. We have described our observations which indicated that fever produces varying degrees of alkalosis, largely because of the loss of the important acid ions of the blood and tissues: carbonic acid and chlorides. Chloride balance can be maintained by adequate chloride intake before, during and after the fever treatment. Dr. Hartman's studies point to a simple and practical method to combat the loss of carbonic acid and the decreased oxygen saturation. It seems apparent that artificial fever therapy by physical means should be restricted to institutions in which the physician and nurse personnel has received adequate preliminary training. Moreover, the likelihood of success in this work is greatly enhanced if it is done by physicians and nurses who devote full time to it. To give only occasional treatments in a haphazard manner is to invite disaster. The production of effectual artificial fever is not adaptable to ordinary office practice. Unless these precautions are exercised, this important adventure in therapeutics is almost certainly doomed to a period of discredit not unlike that which followed the introduction of roentgen rays. In the hands of skilled and devoted workers this form of therapy seems destined to occupy an increasingly important place in the therapeutics of several diseases which have not yielded to other forms of treatment.

DR. J. M. NIELSEN, Los Angeles: I have had the privilege of examining all the patients that Dr. Courville studied and seeing the pathologic specimens. There are certain marked differences between the pathologic condition demonstrated by Dr. Courville as anoxia and the pathologic condition demonstrated by Dr. Hartman. Clinical conditions due to nitrous oxide anesthesia were anoxia; the patients did not have this pathologic condition unless they lived for a considerable time. It took a number of days for it to develop. Whereas, if I understand the presentation correctly, the patients died shortly afterward and had acute changes—these changes were present immediately. Also in the pathologic specimens of Dr. Courville, the lesions were gross. One could look through a slide with the naked eye and see the areas of necrosis, whereas in those demonstrated here a microscopic examination was necessary. I should like to ask Dr. Hartman how long the fever was maintained in the human cases. I notice that it was maintained over many hours in the dogs. I have had experience with artificial fever therapy in dementia paralytica and in tabes, and I have been bothered by one's inability to carry out many of the accurate physiologic preventive measures because one is dealing with mental patients who cannot cooperate. One has to tie them down hand and foot and make them stay there. One can give them saline solution to start, but one can't give them whatever one likes during the treatment. One patient had a rectal temperature of 108.7. I intended to stop the fever at 107, but it wouldn't stop. The patient survived and got more benefit out of that treatment than any other that was given him. Two other patients had a temperature of 108 for the same reason; it wouldn't stop. It has been necessary to put the patients in ice packs to bring the temperature down and nurse them along for twenty-four hours, yet they made good therapeutic recoveries. So there are definite differences here and if the author can add more information, I shall be glad to have it.

DR. VIRGIL H. MOON, Philadelphia: There is no question that heat above a certain level will cause disturbances of circulation, which originate primarily in the capillaries. These are the most delicate structures in the human body. They are the most susceptible to injurious agents or to adverse conditions of various kinds. Even so mild an agent as temporary anoxia of a local area was shown by Landis to increase the capillary permeability in that area seven times. The same results followed when mild injurious agents of a chemical nature were introduced. Heat is another of the agents that will cause capillaries to lose their tonus and to relax in such a fashion as to upset the circulatory efficiency. The changes which Dr. Hartman has described are identical with the changes which I have seen in animals and in human beings in shock induced experimentally or occurring clinically. There were the same edematous congested conditions of the viscera and the same type of hemorrhages and degeneration both in the brain and in the parenchymatous organs. I am sure that he has observed a circulatory effect produced by hyperthermia which is identical in its character to the circulatory changes which I have observed when shock was induced by experimental means. And, again, I believe that probably oxygen therapy is one of the important agents that may be used to counteract this type of circulatory disturbance if it can be applied before the vicious cycle has progressed to the point at which the changes are irreversible.

DR. CLYDE BROOKS, New Orleans: What is the purpose of using amytal or other barbituric acid compounds, and what amount of toxicity and mortality is due to the use of these compounds?

DR. FRANK W. HARTMAN, Detroit: In answer to Dr. Nielsen's discussion, some of the data have been misinterpreted probably because of the hurried presentation. None of the pathologic lesions presented occurred in animals surviving the fever application less than twenty-four hours. Most of the experimental animals lived from forty-eight to ninety-six hours after the fever. The patient presented lived eighteen hours after the completion of the fever therapy and this was the last of a series of treatments. The work reported is in accord with Courville's in that the longer the patient or animal lives after the anoxia the more pronounced the pathologic changes. In our patients the hemorrhages and the necrosis of the cerebellum were obvious in the gross. Regarding Dr. Moon's remarks, I am sure he feels as I do that the underlying etiologic factor in the lesions presented is anoxia. With his extensive investigation of shock he recognizes as I do the importance of anoxia in the whole syndrome. In answer to Dr. Brook's question, the effects of the barbiturate group of sedatives has been emphasized in a previous communication. In an article now in press concerning the preparation of patients for fever therapy, Dr. Dowdy and I stress the necessity of using the less potent and slower acting sedatives.

PRIMARY BRONCHOGENIC CARCINOMA

FROM THE PATHOLOGIC AND RADIOLOGIC POINTS OF VIEW

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The subject of primary carcinoma of the lungs has attained such widespread interest in the past two decades that it may seem vain repetition to attempt to overcram an already voluminous literature with further case reports. On the other hand, some of the most important therapeutic issues are still unsettled, and it is only by evaluating the results of such reports in increased numbers that final decision on these problems will be possible. This paper will attempt only to set forth a few of the highlights as observed in the diagnosis and therapy of this lesion.

TABLE 1.—*Metastases or Extension of Bronchial Carcinoma*

	Percentage
Bones	38
Distant nodes	36
Lungs (other lung or lobes)	36
Regional nodes	34
Liver	20
Pleura	10
Adrenals	8
Kidneys	6
Pancreas	6
Esophagus	6*
Brain	4
Pericardium	4
Auricular appendage and pulmonary vein	4
Intestine	2
Thyroid	2
Spleen	2
Diaphragm	2

Since the founding of our clinical unit in 1913, approximately 30,000 patients have presented themselves for examination and 18,000 malignant growths have been discovered. Seventy-three cases of carcinoma of the bronchus were recognized, an incidence of 1 to 250. At postmortem examination this lesion was noted with half the frequency of carcinoma of the stomach and, like the latter, predominated in males, being five times more frequent in men than in women. The greatest prevalence was noted between the ages of 40 and 70 years, the lesion being most commonly observed in the fifth decade.

Metastases, as determined by combined clinical and postmortem manifestations, were most numerous in the bones; the incidence was 38 per cent. Involvement of distant nodes was slightly less frequent, the incidence being 36 per cent. About one third or more of our patients have therefore shown distant metastases at or shortly after the time of diagnosis. Extension to the adjoining lobes of the lung or to the contralateral lung or regional nodes occurred with approximately the same frequency as distant metastases. Hence, pathologically considered, the prognostic outlook, especially as judged from this material, is therapeutically far from promising. Table 1 contains a more detailed study of the metastases and extensions and is quite similar to that given for other series, with the exception of the low incidence of metastasis to the brain, which may be attributable to our inability to hospitalize the patients and to obtain complete autopsies.

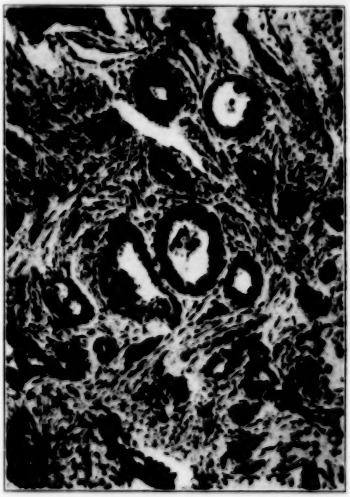

Fig. 1.—Adenocarcinomatous type Ia. (Figures 1 to 7, inclusive, show the histopathologic tendencies of bronchus carcinoma according to classification given in table 2. It should be noted that the fields were representative of the predominating cellular architecture of the particular specimen studied. In a few instances, however, the pleomorphism was so marked as to make such classification impossible.)

On the basis of a common cellular origin from the basal cell epithelial deposits beneath the lowermost layer of the bronchial mucosa, as postulated by Fried,[1] an attempt was made to classify the tumors according to predominating cellular architecture. Although universal pleomorphism was generally in evidence, it was usually possible to group the tumors on a histopathologic basis;

From the State Institute for the Study of Malignant Disease, Burton T. Simpson, M.D., Director.

Read before the Section on Radiology at the Eighty-Eighth Annual Session of the American Medical Association, Atlantic City, N. J., June 10, 1937.

1. Fried, B. M.: Primary Carcinoma of the Lung, Medicine **10**: 173-503 (Dec.) 1931

they ranged from the most differentiated adenocarcinomatous types, on the one hand, through those of squamous cell predominance to those with anaplastic tendencies, on the other. Under such a purely artificial scheme, the greatest incidence was found to occur in

Fig. 2.—Adenocarcinomatous type IIb.

the squamous cell group, where keratonizing tendencies were noted in twenty-two and nonkeratonizing in twelve. The next greatest incidence occurred in the less differentiated round cell group, in which fourteen tumors were classified. For more complete details reference should be made to table 2.

TABLE 2.—*Histopathologic Classification of Bronchial Carcinoma According to the Predominating Cellular Tendency* *

	Cell differentiation	No. of Cases
Adenocarcinoma	I. Adenocarcinoma tendencies	
	a. Not mucus-producing, with columnar cells lining acini	4
	b. Mucus-producing	2
	c. Cuboidal cell lining acini	0
Squamous cell lesions	II. Squamous cell tendencies	
	a. Keratonizing (pearls)	22
	b. Nonkeratonizing	12
	III. Basal cell tendencies (transitional)	6
Anaplastic	IV. Round cell tendencies (medullary)	14
	V. Spindle cell tendencies (oat cell)	2
	Cell undifferentiation	—
		62

* Based on the assumption of the unitary cellular theory of origin from the basal cell deposits beneath the bronchial mucosa, as postulated by Fried.[1]

The histopathologic data, as outlined, were further correlated with age, location of the primary lesion, degree of malignancy, radiosensitivity and survival period without any apparent differences being indicated, as might be expected on the theory of common origin of the tumor cells and the universal tendency to pleomorphism.

Two well defined clinical groupings were noted and should be mentioned. The first, based on anatomic location of the primary lesion and previously suggested by Rabin and Neuhof,[2] divides these lesions into the peripherally located parenchymatous ones and the four to six times more frequent hilus or central types. Only seven cases in our series of seventy-three could be placed in the peripheral classification. This peripheral group is important from the point of view of operability and should be given utmost attention by the roentgenologist, especially in cases in which there are manifestations of isolation of the tumor mass, effusion or chronic abscess formation; the last Edwards [3] has shown to be broken down pulmonary cancer in 10 per cent of the cases.

The second interesting variety of cases are those which, for want of a better term, we have designated as the atypical group, with a metastatic history of onset. Here pulmonary symptoms are not manifested, and often roentgen evidence is obscure until some time after the patient has sought relief for distant metastatic phenomena, such as enlarged inguinal glands in one

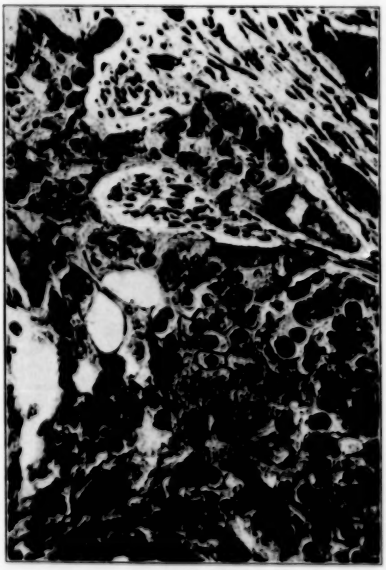

Fig. 3.—Squamous cell type IIa.

case, dysphagia in others or tumor of the brain as reported by Fried. Eleven cases in our series, or 15 per cent, were classified in this atypical group. Thus it appears that only by the development of an

2. Rabin, C. B., and Neuhof, Harold: A Topographic Classification of Primary Cancer of the Lung: Its Application to Operative Indications and Treatment, J. Thoracic Surg. 4:142 (Dec.) 1934.

3. Edwards, A. T.: Malignant Disease of the Lung, J. Thoracic Surg. 4:107 (Dec.) 1934.

alertness to detect bronchial carcinoma and the use of serial roentgenography in all cases in which the history is suggestive can the clinician or radiologist be led to the early recognition of these lesions.

Although the roentgen evidence may not be pathognomonic, because of the case with which it is obtained, it most often leads to a provisional diagnosis

TABLE 3.—*Predominating Roentgenographic Characteristics*

	Manges and Farrel (30 Cases)	State Institute for the Study of Malignant Disease (38 Cases)
Atelectasis	40%	42%
Increased markings	28%	21%
Tumor mass	24%	13%
Abscess or cavitation	6%	9%
Pleural effusion	2%	13%

of pulmonary cancer. Again, the classification of Rabin and Neuhof,[2] with the usual early finding of atelectasis in the hilus group and demonstration of a tumor mass in the rarer peripheral types, will be helpful from both the diagnostic and the prognostic angles.

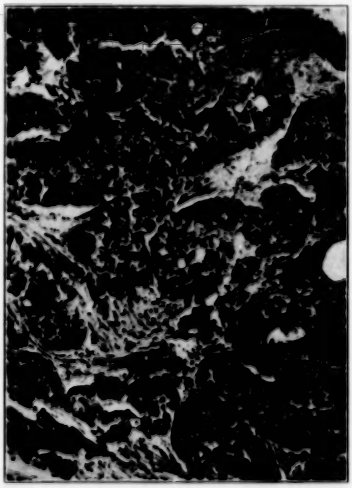

Fig. 4.—Squamous cell type IIb.

In fact, any unilateral pulmonary involvement in a person past midlife should be viewed with suspicion until proved nonmalignant. Frequent recourse to lateral projections, bronchography with iodized oil, and pneumothorax will be found helpful in clearing up the diagnosis in some of the more difficult cases.

The predominating roentgen characteristics were noted in the films available and compared with a similar series studied by Farrell.[4] The minor variations noted in table 3 tend to indicate that our patients were seen later and showed more advanced lesions than those observed by Farrell.

4. Farrell, John T., Jr.: Diagnosis of Bronchial Carcinoma: A Clinical and Roentgenologic Study of Fifty Cases, Radiology **26**: 261 (March) 1936.

Much controversy has arisen over the proper therapeutic management of bronchial carcinoma. The radiologic literature is full of reported regressions and arrests of pulmonary tumor, but unfortunately most

Fig. 5.—Squamous cell type III (transitional).

Fig. 6.—Anaplastic cell type IV (round cell or medullary).

of the studies were uncontrolled by suitable pathologic confirmation and therefore have to be disregarded. An occasional reported arrest of the tumor for three years, with later recurrence and death in five years, as reported

by Gantenberg,[5] and the noted case of basal cell type of squamous carcinoma of Kahler's,[6] in which the patient lived nine years after intensive irradiation, should be mentioned. The experience of the Memorial Hospital, as recorded by Stewart,[7] that of the Mayo Clinic, as cited by Vinson,[8] that of Kernan,[9] and our own are all surely far from auspicious in respect to the results of radiation therapy in particular and of all present day therapy in general. A tabulation of the survivals in sixty-four of our cases confirms our opinion.

Fig. 7.—Anaplastic cell type V ("oat cell").

Most of the therapeutic optimism is at present being displayed by the thoracic surgeon. In two of our cases thoracic surgical procedures were employed with nice palliation in one, in which the involved lobe was removed, and death one month after pneumectomy in the other. Kernan, who has had a large metropolitan experience with bronchial carcinoma, stated that he has yet to witness any of the reputed surgical cures. In fact, it has been intimated that many reported surgical arrests may, on further histopathologic review, be attributed to the fact that the tumor was of the not infrequent benign type which is now classified as adenoma.

With the merits of the most approved methods of therapy thus in question, it has been our practice to continue protracted intensive irradiation of the majority of these lesions by a four to six field technic with long target distance, supplemented by endobronchial radon seed implants or, where advisable, endothermic coagulation of the endobronchial proliferations. We have often noted marked palliation and occasionally an apparent arrest for periods beyond the average survival for our treated patients, but we have never had a "cure" and are naturally not satisfied with these results. We feel, however, that we must endeavor to improve our irradiation technic, as we have seen few promising surgical prospects in our material and still fewer patients who could or would submit to exploratory and possibly lethal thoracic surgical procedures. It is therefore our opinion, after considering our results and reviewing summarily those of others, that the urgent need of today in the management of this lesion is both earlier diagnosis and better therapy, the type of the latter being still undecided.

SUMMARY

In sixty-five of seventy-three cases of bronchial carcinoma from the State Institute for the Study of Malignant Disease the condition was proved by histologic examination of a section obtained at biopsy or autopsy.

Although histologic study in sixty-two cases showed a universal pleomorphism, there was also a predominance of certain histopathologic architectural trends, depending on the degree of cellular differentiation.

No correlation between age of occurrence, anatomic location of the primary lesion, radiosensitivity, degree of malignancy, survival and the histopathologic groups could be demonstrated.

The most common roentgen characteristics were atelectasis in the hilus or central type and tumor in the peripheral type, which was found in only 11 per cent of the cases in this series.

The predominance of a central location of the primary lesion, the tendency to early and distant metastasis and the marked pleomorphic picture all conspire to make the prognosis unsatisfactory by either surgical intervention or irradiation.

Earlier recognition and better therapy remain the urgent need.

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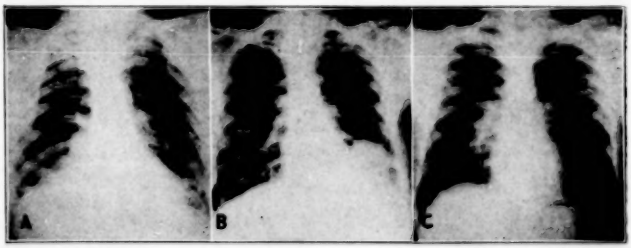

Fig. 8.—The three representative clinical types of bronchial carcinoma: *A*, the hilar or central type, which is the most common; *B*, the peripheral or parenchymatous type, which is less frequent, and *C*, an early film of the nonpulmonary type, in which the initial complaint is due to metastases often in distant parts.

5. Gantenberg, R.: Erfahrungen über Klinik und Behandlung intrathorakaler Tumoren, Strahlentherapie **47**: 426 (July 5) 1933.

6. Kahler, H.: Durch neun Jahre geheilter Fall eines histologisch nachgewiesenen Bronchuskarzinoms, Wien. klin. Wchnschr. **46**: 1404 (Nov. 17) 1933.

7. Stewart, Fred W.: Radiosensitivity of Tumors, Arch. Surg. **27**: 979 (Dec.) 1933.

8. Vinson, P. P.: Primary Malignant Disease of the Tracheobronchial Tree: Report of 140 Cases, J. A. M. A. **107**: 258 (July 25) 1936.

9. Kernan, John D., in discussion on Vinson.[8]

ABSTRACT OF DISCUSSION

DR. RALPH E. MYERS, Oklahoma City: Nearly five years ago I was called in consultation following an incomplete surgical removal of a tumor from the back of a patient about 50 years of age. Examination revealed that this was part of a lung carcinoma which had grown through the chest wall and destroyed about four inches of the fifth rib. In spite of the apparently unfavorable prospects, heavy roentgen therapy was administered. The patient responded amazingly and in about four months had gained over 30 pounds (13.6 Kg.). Evidently the irradiation had not been quite intensive enough to destroy the tumor completely. In a few months the symptoms of pain in the region of the growth, of fever and of loss of weight intervened. The skin showed definite changes from the first treatment, but after some hesitation it was finally decided that a badly damaged skin with perhaps a living patient was better than a dead patient. About four years ago, and about a year after the first series, a second intensive course of roentgen therapy was applied. Today the patient appears perfectly well. He has taken good care of himself and has gone south every winter to avoid the cold. I have been pleased that he has done this as experience leads me to believe that a heavily irradiated lung is often very susceptible to infection. This spring he felt well enough to resume his former occupation. It is evident that this case was a much more favorable one for treatment than it seemed to be in the beginning. Although lung carcinoma is prone to metastasize, this one evidently had not done so. Furthermore, its peripheral location permitted cross-firing from several portals of entry. Unless something unforeseen intervenes, this patient will probably go beyond the five year period. If not, he at least has had wonderful palliation. Surely there are other occasional cases as favorable for treatment as this one. Radiotherapists should therefore undertake the treatment of these patients with the idea that considerable palliation sometimes occurs and that even a cure is possible.

DR. EDWARD L. JENKINSON, Chicago: What type was this carcinoma?

DR. MYERS: It was an undifferentiated type. Its general structure was suggestive of what Dr. Geschickter in the *American Journal of Cancer* (December 1934) characterized as adenocolumnar carcinoma of terminal bronchioles.

DR. ORVILLE N. MELAND, Los Angeles: I will mention briefly two cases that I had under observation and treatment: A man, aged 65, who complained of dyspnea and cough, was treated by Dr. Tyler in Omaha by means of x-rays first and then by the implantation of radium element needles through the bronchoscope. He came out to the coast and more needles were inserted in the bronchus. Following this there was complete disappearance of the tumor and disappearance of the atelectasis of the lower lobe. The patient lived for almost five years; he died from metastasis of the liver, but there was no evidence of any trouble in the lung itself. A man, aged 45, had dyspnea, cough and bloody expectoration and a tumor the size of a baseball in the right upper lobe. It was in such a location that it could not be demonstrated through the bronchoscope. He was given roentgen therapy with complete disappearance of the tumor. It is now five years since he was treated. He is perfectly well and is continuing his work as a clerk in the government service.

DR. WALTER L. MATTICK, Buffalo: Dr. Myers and Dr. Meland have added a note of encouragement to radiologists. I did not intend to be so pessimistic, but I again would emphasize that I am speaking only of pathologically proved cases. We have seen nice palliations in several cases; one patient particularly who was seeded with radon through the bronchoscope went along to termination with beautiful palliation. His doctor, one of the prominent thoracic surgeons, was highly satisfied and wrote a fine letter describing the marked relief this man received. I have not said anything about dosage primarily because I could not go into the question in such a short time. The dose must be the extreme if results are to be expected. I have given doses of as much as 18,000 roentgens in heavily filtered x-rays to these lesions over a period of three months.

INTERMITTENT VENOUS OCCLUSION IN TREATMENT OF PERIPHERAL VASCULAR DISEASE

AN EXPERIENCE WITH ONE HUNDRED AND TWENTY-FOUR CASES

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In attempting to determine the mechanism responsible for the clinical benefits obtained by constrictive hyperemia,[1] Lewis and Grant [2] found that during the period of venous congestion produced by the application of a tourniquet there occurred an increase in arterial amplitude in their plethysmographic tracings. More important, however, was their observation that when the constricting band was released there resulted an increase in arterial flow much out of proportion to the original resting period. This they called reactive hyperemia. Circulatory arrest created for a period of fifteen minutes would effect an increase in flow of as much as 600 per cent after release.

TABLE I.—*Distribution of 124 Cases of Peripheral Vascular Disease*

	Number of Cases
Thrombo-angiitis obliterans	27
Peripheral vascular sclerosis (nondiabetic):	
With open lesions	8
Without open lesions	25
Peripheral vascular sclerosis (diabetic):	
With open lesions	34
Without open lesions	14
Embolus and thrombosis	7
Frostbite gangrene	1
Raynaud's disease	1
Varicose ulcers	7
Total cases	124

Barsoum and Smirk [3] believe that when tissues are subjected to circulatory arrest they liberate a histamine-like substance which they have been able to demonstrate to be present in increased concentration in venous blood after the release of circulatory arrest. It is thought that this substance accounts at least in part for the creation of reactive hyperemia.

Recognizing that the temporary interruption of the venous return results in increasing arterial amplitude and that the release of the obstruction is followed by a very pronounced form of reactive hyperemia, we decided to apply both these principles in the treatment of peripheral vascular disease. This was done by the construction of an apparatus which automatically produced intermittent periods of venous compression and release of compression. The apparatus was connected to a pneumatic cuff which embraced the proximal portion of the extremity. The cuff was inflated to a pressure necessary to constrict the veins and was then released. This cycle was then continuously repeated so that the final result consisted of alternating periods

From the Department of Metabolism and Medicine, Israel Zion Hospital.

Dr. Henry Joachim, head of the Division of Medicine of the Israel Zion Hospital, cooperated in allowing us to use the material from his service.

1. Bier, August: Die Enstehung des Collateral Kreislaufs, Virchows Arch. f. path. Anat. **147**: 256 and 447, 1897.

2. Lewis, Thomas, and Grant, Robert: Observations on Reactive Hyperemia in Man, Heart **12**: 71 (June) 1925.

3. Barsoum, G. S., and Smirk, F. H.: Observations on the Increase in the Concentration of a Histamine-like Substance in Human Venous Blood During a Period of Reactive Hyperemia, Clin. Sc. **2**: 353 (Dec.) 1936.

of venous congestion (Bier congestive hyperemia) and release of congestion (Lewis reactive hyperemia). We found in our experimental studies that compression of the proximal portion of the extremity up to 80 mm. of mercury for alternating periods of two minutes with two minutes of release applied continuously for as much as twelve hours a day had a decided therapeutic effect in

Fig. 1 (case 2).—Thrombo-angiitis obliterans in a man, aged 29, with an ulcer of six months' duration, marked rest pain, with relief only by narcotics. *A*, before treatment; *B*, four weeks after treatment; completely healed.

the treatment of diseases associated with pathologic arterial changes. Early reports of this method have already appeared.[4]

This method is not to be confused with the use of alternate suction and pressure in the treatment of the same group of diseases. While suction and pressure are concerned with alternating periods of environmental changes in pressure with the extremity inserted in a hermetically sealed boot, our method does not in any

Table 2.—*Summary of Twenty-Seven Cases of Thrombo-Angiitis Obliterans*

	Number of Cases	Percentage Healed
Ulcer or gangrene	17	
Completely healed	12	71
Healing	3	
Amputation	2	
Healed and subsequently broken down	3	
		Percentage Completely Relieved
Rest pain	27	
Complete relief in 48 hours	23	85
Partial relief	3	
No relief	1	

way influence the environmental changes in pressure but consists only in intermittent interruptions of venous return by the application of a pneumatic cuff to the proximal portion of the extremity. This paper is concerned with an analysis of the results of the use of this method in the treatment of 124 cases of peripheral vascular disease. The distribution of these cases is seen in table 1.

4. Collens, W. S., and Wilensky, N. D.: The Use of Intermittent Venous Compression in the Treatment of Peripheral Vascular Disease, Am. Heart J. **11**: 705 (June) 1936; An Apparatus for the Production of Intermittent Venous Compression in the Treatment of Peripheral Vascular Disease, ibid. **11**: 721 (June) 1936; The Treatment of Peripheral Obliterative Arterial Diseases by the Use of Intermittent Venous Occlusion, J. A. M. A. **107**: 1960 (Dec. 12) 1936.

Thrombo-Angiitis Obliterans

Our series contained twenty-seven cases of thrombo-angiitis obliterans. A summary of these cases and results will be seen in table 2. It will be observed that all the twenty-seven patients were suffering from severe rest pain and intermittent claudication. There was complete relief of pain in 85 per cent within forty-eight hours after the introduction of treatment. Of the seventeen cases presenting ulcers, twelve healed completely (71 per cent). There was a remarkable

Table 3.—*Oscillometric Readings Before and After Treatment*

Oscillometric Readings	Before Treatment		After 2 Weeks Treatment	
	Right	Left	Right	Left
Midthigh	Trace	¼	2⅝	2½
Below knee	0	0	¼	⅛
Above ankle	0	0	Trace	Trace
Dorsalis pedis artery	0	0	Trace	Trace
Venous filling time	17 sec.	15 sec.	15 sec.	12 sec.

increase in the patients' walking capacity. The following are reports of typical cases:

Case 1.—N. M., a man, aged 40, Jewish, complained for three years of intermittent claudication which became progressively worse, so that at the time of admission to the hospital he was able to walk only one block without claudication. He had frequent attacks of migrating phlebitis. He also complained of severe rest pain, especially at night. He was compelled to cease smoking and had been treated by diathermy, baking, massage, hot and cold contrast baths and roentgen therapy of the lumbar spine without relief. Examination disclosed evidence of main arterial obstruction in addition to the presence of two phlebitic lesions on the lower third of the right leg. No pulsations were obtained in the dorsalis pedis, posterior tibial or popliteal arteries. Oscillometric readings and venous filling time before institution of treatment are seen in table 3.

The patient was put to bed with a cradle baker over his legs at a temperature of 95 F., and intermittent venous compression was applied to the thigh at 60 mm. of pressure for

Fig. 2 (case 4).—Arteriosclerotic ulcer of fourteen months' duration in a man, aged 74; it has a dirty gray base, is painful and is becoming progressively larger. *A*, before treatment; *B*, four weeks after treatment; complete scaling.

two minutes on and off. This treatment was maintained continuously for forty-eight hours, day and night. Following this it was reduced to eight hours a day but the pressure was increased to 90 mm. Within twenty-four hours all of the rest pain disappeared. The phlebitic lesions were gone on the second day. The patient was discharged from the hospital in one week and was subsequently treated as an ambulatory patient receiving two hours of treatment daily. There was a very remarkable

increase in his walking capacity, from 200 feet to 1,500 feet. It will be noted in table 3 that there was an increase in the oscillometric readings and a reduction in the venous filling time, indicating a definite increase in the vascular capacity of the extremity. It is also interesting to note that after four weeks of treatment there appeared a growth of hair on the dorsum of the toes, foot and tibial crest.

CASE 2.—L. L., a man, aged 29, Jewish, gave a history of an ingrown toenail on the right large toe two years before

Fig. 3 (case 5).—A diabetic man, aged 59, with osteomyelitis of the fourth toe, of five weeks' duration, presenting secondary infection, lymphangitic streaks and edema of the foot, and closed major arterial pathways; midthigh amputation had been advised. *A*, before treatment; *B*, twelve weeks after treatment: spontaneous expulsion of sequestrum with complete healing. Note signs of regeneration of nail of the great toe.

admission which took one year to heal. For the past year he had complained of intermittent claudication, being unable to walk more than one block. There was an unbearable numbness in the feet, which disappeared on rest. Six months before admission a very painful ulcer developed on the right great toe, which became progressively worse in spite of the therapy he received. He was treated at the Presbyterian Hospital for a short time and subsequently at the Beth Israel Hospital. His

TABLE 4.—*Summary of Cases of Peripheral Vascular Sclerosis (Nondiabetic)*

	Number of Cases	Per Cent
Total number of cases	33	
Males	28	
Females	5	
Incidence of open lesions	8	24
Pain relief		
Complete relief in 48 hours	27	82
Partial relief	4	12
No relief	2	5
Ulcers or gangrene		
Ulcers completely healed	4	100
Gangrene	4	
Completely healed	1	25
Healing	2	50
Failed	1	25

treatment consisted of suction and pressure and daily intravenous injections of hypertonic saline solution during his hospital stay. He had also received diathermy and had stopped smoking and was given bed care. On discharge from these institutions his condition was unchanged. Examination disclosed definite evidence of organic peripheral vascular disease. There were no palpable pulsations in the feet or legs. The oscillometric readings showed a trace at the midthigh of both the right and the left leg and 0 below the knee, at the ankle and at the dorsalis pedis artery of both legs. The venous filling time was 50 seconds in the right and 30 seconds in the left foot.

There was a cyanotic rubor of the right foot in the dependent position and it was colder than the left. An unhealthy ulcer one-half inch in diameter and very tender to touch was present, with surrounding edema. In view of his age and the absence of calcification of vessels in the x-ray films a diagnosis of thrombo-angiitis obliterans with a gangrenous ulcer of the right great toe was made. He came to the hospital in great pain and was consuming large quantities of codeine and salicylates to get some relief. The patient was given continuous intermittent venous occlusion at 30 mm. of pressure. There was a remarkable relief of pain within twenty-four hours and at the end of

TABLE 5.—*Oscillometric Readings in Case 3*

	Before Treatment		After Two Weeks of Treatment	
	Right	Left	Right	Left
Thigh	1½	Trace	2	¼
Below knee	0	0	½	½
At the ankle	0	0	Trace	Trace
Venous filling time	12 sec.	15 sec.	8 sec.	10 sec.
Walking ability increased from 350 to 900 feet				

two days islands of healthy granulation tissue began to appear in the base of the ulcer. One week after admission the entire base was covered with healthy granulations. At the end of four weeks the patient walked out of the hospital with complete epithelization of the ulcer and free from pain. Figure 1 shows the ulcer before and after treatment.

ARTERIOSCLEROSIS OBLITERANS (NONDIABETIC)

We collected thirty-three cases in this series in which twenty-eight patients were males and five were females. It will be noted from table 4 that complete relief of pain within forty-eight hours was obtained in 82 per cent of the cases. Four patients who came to us with chronic indolent ulcers were entirely healed.

CASE 3.—J. H., a man, aged 66, Jewish, gave a history of intermittent claudication of ten years' duration. The symptoms had been getting progressively worse and the distance that he had been able to walk before cramps developed in the legs was getting shorter. Within the last two years he had begun to complain of a considerable degree of rest pain keeping him awake at night and necessitating the use of large doses of narcotics. His previous treatments had consisted of baking, rest, contrast baths and diathermy. Physical examination was

Fig. 4 (case 6).—Diabetic gangrene in a woman, aged 58, with closed major vessels, gangrene and osteomyelitis of the third toe, edema of the foot, lymphangitis and fever. *A*, before treatment; *B*, spontaneous expulsion of sequestrum. Note exuberant granulation tissue two weeks after treatment; *C*, four weeks later: completely healed.

negative except for the condition in the lower extremities. The feet were cold, the skin was dry and no pulsations were obtained in all the major vessels. The venous filling time was thirteen seconds in the right and fifteen seconds in the left foot. At the rate of 11 paces every five seconds he was unable to walk more than 350 feet before claudication developed. In view of his age, the diagnosis of peripheral vascular sclerosis was made. He was not diabetic. He was given intermittent venous compression at 80 mm. for two weeks. All the rest pain was completely relieved within twenty-four hours. Oscillometric readings were improved.

Case 4 illustrates our experience with a case of peripheral vascular sclerosis with a chronic indolent ulcer on the right great toe of fourteen months' duration.

Case 4.—A man, aged 74, Jewish, bedridden, complained of severe rest pain and inability to walk. He had been unsuccessfully treated with various ointments, wet dressings, baths, baking and diathermy. On admission he presented all the signs of chronic obliterative arterial disease with marked obstruction of the sclerotic type. His feet were cold, there were no pulsations, and oscillometry showed no readings below the knees. There was a dirty gray infected ulcer on the medial surface of the right great toe with surrounding edema, redness and marked tenderness (fig. 2 *A*). X-ray examination showed calcification of the major vessels. Intermittent venous occlusion was applied continuously at 50 mm. In twenty-four hours the pain was entirely gone. On the fourth day islands of healthy granulation tissue began to appear. In four weeks the ulcer was completely healed (fig. 2 *B*).

ARTERIOSCLEROSIS OBLITERANS (DIABETIC)

There are forty-eight cases in this group, in which twenty-two patients were males and twenty-six females. Seventy-one per cent of the entire group had open lesions. It will be noted in table 6 that 60 per cent

Fig. 5.—Case of thrombo-angiitis obliterans of fourteen years' duration, closed major vessels, ulcer of seven years' duration, no healing, treated continuously by Dr. Samuels for seven years, three times a week with hypertonic saline solution intravenously. *A*, before treatment; *B*, five weeks after treatment: complete healing.

were completely relieved of pain in forty-eight hours and 33 per cent were partially relieved. There occurred complete healing of lesions in 76 per cent of our cases and 24 per cent came to amputation.

The following cases are examples of our experience in this group:

Case 5.—M. A., a man, aged 59, Jewish, had had a relatively mild degree of diabetes for ten years. He had been suffering from an infected right fourth toe, which became progressively worse for five weeks before admission. Pain was very severe and kept him awake at night. During his stay in another hospital midthigh amputation was advised because of the spreading lymphangitis and fever associated with progressive gangrene. On admission he showed the presence of an area of gangrene involving the middle portion of the dorsum of the right fourth toe. This gangrenous patch was firmly adherent to the deeper structures. The toe was red and swollen (fig. 3 *A*). There was edema on the dorsum of the foot and lymphangitic streaks were present. X-ray examination disclosed the existence of osteomyelitis of the middle phalanx and calcification of the major vessels. No pulsations were obtained. Oscillometric readings were absent in both legs below the knees. There was a marked delay in the venous filling time. The diagnosis was diabetes, arteriosclerosis obliterans and osteomyelitis with gangrene of the fourth right toe. The patient was given intermittent venous occlusion at 50 mm. of mercury and the relief of pain was almost immediate, occurring within eight hours.

This treatment was given for twelve hours daily. At the end of two weeks islands of granulation tissue and bleeding points began to appear in the margins of the gangrenous slough.

Table 6.—*Summary of Cases of Peripheral Vascular Sclerosis (Diabetic)*

	Number of Cases	Per Cent
Total number of cases	48	
Males	22	
Females	26	
Incidence of open lesions	34	71
Pain relief		
Complete relief of pain	29	60
Partial relief of pain	16	33
No relief of pain	3	7
Ulcer and gangrene		
Total number of cases	34	
Healed	23	68
Healing	4	
Failures		
No healing	1	
Amputation	8	24

At the end of four weeks there occurred a spontaneous extrusion of the sequestrum, which was easily picked out with a pair of forceps. Following that, the base of the ulcer showed a progressive growth of healthy granulation tissue. In twelve weeks the patient was discharged with the toe completely healed (fig. 3 *B*).

Case 6.—M. G., a woman, aged 58, Jewish, had been diabetic for twelve years. She also had hypertension (220 systolic, 110 diastolic) and peripheral vascular sclerosis. She had been receiving a high carbohydrate diet with 15 units of insulin once a day for one year. Two weeks before admission, because of marked rest pain and coldness in the feet associated with peripheral vascular sclerosis, she had applied a "thermalite baker" to the feet and sustained a burn with bleb formation on the dorsum of the middle toe of the right foot. This burn became infected, tissues broke down and when she appeared for examination there existed a gangrenous lesion with ulceration covering the entire dorsum of the third toe (fig. 4 *A*). The surrounding region was red and edematous. The temperature was 101 F. Oscillometric readings showed 0 above the ankle and one fourth below the knee. No palpable pulsations were obtained in the leg. The venous filling time was thirty-two seconds. The x-ray films showed osteomyelitis involving the middle phalanx of the third toe. The carbohydrate tolerance was broken, obviously the result of the infection. The patient was put to bed, a warm boric acid dressing was applied to the foot, a cradle baker was put in place to maintain the environmental temperature at 95 F., and intermittent venous compression was given at 40 mm. alternating two minute cycles continuously. The patient experienced a very prompt relief of pain. In three days there was extensive bleeding from the lesion. After ten days of treatment the sequestrum was expelled; what was most unusual about this case was the appearance of exuberant granulation tissue (fig. 4 *B*). This was the first time that we had seen the appearance of exuberant granulations in a lesion on an extremity which had an interference in circulation from obliterative arterial disease. It was so pronounced that we found it necessary on three occasions to apply a silver nitrate stick, a procedure which we otherwise would have carried out with great trepidation under conditions associated with

Table 7.—*Summary of Cases of Embolus and Acute Arterial Thrombosis*

	Number of Cases
Total number of cases	7
Relief of pain, complete in 8 hours	In all cases
Completely recovered	4
Amputation and died	1
Died from other causes, no amputation	2

peripheral vascular obstruction. Four weeks after admission the patient was discharged with epithelization and complete healing of the lesion (fig. 4 *C*).

We have included in our series seven cases comprising a group in which there were acute embolic phenomena to the major vessels of the lower extremity or thrombosis. One patient suffering from subacute bacterial endocarditis had an embolus to the right popliteal artery. Two patients with auricular fibrillation had emboli in the femoral artery and four patients with peripheral vascular sclerosis had attacks of acute popliteal thrombosis. In all the cases a remarkable relief from pain was noted within eight hours. Three patients completely escaped gangrenous destruction. One patient in whom a patch of gangrene had developed on the great toe recovered completely. In the patient with subacute bacterial endocarditis a small patch developed on three toes, but she died three weeks later from a cerebral embolus. One patient with auricular fibrillation in whom gangrene of the foot developed was a poor operative risk and died of congestive heart failure. The seventh had a midthigh amputation and died two days after operation (table 7).

There are also included seven cases of large chronic varicose ulcers of long standing, all of which healed completely. The details of these cases will be presented in a separate communication.

COMMENT

An important problem which always arises in a clinical investigation is concerned with establishing adequate control conditions. It is very obvious in a group such as this that bed rest, the continuous maintenance of an environmental temperature at 95 F. and the elimination of tobacco would in themselves play a part in producing beneficial effects. We must state, however, that most of our patients had already experienced this form of control before coming under our care and that the only variable which we created was that of introducing a state of intermittent venous compression.

An examination of our tables of peripheral vascular sclerosis discloses some rather interesting information. It will be noted that there was a somewhat larger incidence of arteriosclerosis obliterans in diabetic than in nondiabetic patients. Yet there occurred a remarkable difference in sex distribution. While among the nondiabetic patients 85 per cent were males, in the diabetic group only 46 per cent were males. This is easily understandable when one realizes that diabetes occurring in later life is predominantly in females. Another important phase of this subject deals with the incidence of ulcer and gangrene. While 24 per cent of the nondiabetic group presented open lesions, 71 per cent of the diabetic group was similarly affected. This simply means that, although sclerotic changes in peripheral blood vessels occur in the nondiabetic almost as frequently as in the diabetic, the vulnerability of diabetic tissues to infection results in thrombotic processes that subsequently terminate in death of tissues.

It is very obvious that no procedure can change the structural characteristic of an organically altered major blood vessel. We do not believe that an artery obliterated by sclerotic degenerative changes can be made subsequently to permit the transport of blood. Any attempt at improving the vascular capacity of an extremity whose major vessels had been obliterated by degenerative changes can be effected only through the development of a collateral circulation or through the release of a spastic phase of a partially obliterated artery already organically altered. This we believe can be accomplished by very powerful and active local vasodilatation. Lewis and Grant in their studies thought that the active vasodilatation which followed the discontinuance of temporarily interrupted circulation was the result of the release from tissue cells of an H substance which possessed strong vasodilator effects. We have found in our own plethysmographic studies of patients suffering from thrombo-angiitis obliterans or sclerotic obliterative arterial disease that at the height of venous congestion and during the state of reactive hyperemia the arterial amplitude increased to such a remarkable extent that dicrotism in the pulse could occasionally be observed.

In analyzing the beneficial effects of alternating suction and pressure we are of the impression that the phase of suction which builds up a negative pressure far greater than intravenous pressure results in venous congestion. Any one looking through the transparent cellulose acetate boot at the extremity during the phase of suction will see the enormous distention of the superficial veins with a cyanotic flush of the extremity, which is obviously venous congestion. We do not see any benefits that can be derived from the pressure phase of suction and pressure. We can, however, understand that the pressure phase can have deleterious effects for two reasons; first, it encourages the active introduction of infected thrombotic material from the margins of ulcers and gangrene; second, it retards the development of reactive hyperemia which must follow the phase of suction. This may explain the reason for the numerous accidents that occur following the use of suction and pressure and also the reason for the great many contraindications that have been built up by men working with it. If that is the mechanism responsible for the beneficial effects derived from our method as well as the suction phase of suction and pressure, we feel that our procedure is capable of producing a more profound therapeutic effect because of the ability to apply venous compression for longer periods than suction. Lewis and Grant definitely demonstrated that the longer the venous congestion was applied and the greater the degree of pressure up to 90 mm. of mercury, the more profound was the reactive hyperemia.

Lewis and Grant made a significant observation when they noted a direct relationship between the degree of reactive hyperemia and the environmental temperature of the extremity. They found when they maintained venous compression at the same level and for the same periods but altered the environmental temperature that the higher the temperature the more pronounced was the reactive hyperemia. On the basis of this observation we have recently modified our technic in the treatment of the ambulatory case and taken advantage of this important observation. When the patients come for daily treatments a short wave or diathermy apparatus is used with a flat plate electrode applied to the plantar surface of the foot and a cuff electrode placed below the knee. The pneumatic cuff for producing intermittent venous compression is at the same time applied at the midthigh and the two treatments are given simultaneously for approximately one hour. We have been significantly impressed with the marked clinical benefits that are obtained when the phenomenon of reactive hyperemia is thus accentuated by elevating the temperatures of the deeper structures. The surface temperature of the leg need not be elevated higher than 100 F.

It will be noted from our tables that we had a certain percentage of failures, especially pronounced in the diabetic patients suffering from peripheral vascular sclerosis and gangrene. In our series of thirty-four cases of diabetic ulcer or gangrene, 24 per cent came to amputation. That figure is vastly lower than commonly quoted figures of 50 per cent under the influence of all other methods of treatment. We do not claim that this is a cure-all for every case of obliterative vascular disease, but one must recognize the limitations of any method when one is contending with a case which presents such profound vascular obliteration that the potential collateral flow becomes involved. Under such circumstances a certain percentage of these cases must eventually come to amputation. It then becomes a question of lowering that figure by methods which are capable of favorably influencing extremities that have the capacity to improve collateral arterial flow.

We feel that our method is capable of increasing vascular capacity, as is evidenced by the following phenomena: relief of rest pain, increase of walking capacity, regeneration of tissues, improvement in the nutrition of nails, and the growth of hair over areas which had become denuded as the result of obliterative arterial disease. We were able to note in one case the development of granulation tissue to such a degree of exuberance that it necessitated the use of silver nitrate on three different occasions in order to prevent the development of keloid.

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STUDIES OF THE BLOOD CHEMISTRY IN THYROID CRISIS

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In reviews of the cause of death from goiter, thyroid crisis generally accounts for more than half of the mortality.[1] At the University Hospital from 1925 through 1933, 70 per cent, or eighty-eight, of the 123 deaths from goiter were due to this cause. Fifty-one of these eighty-eight occurred in the medical service,[2] before the patient could be improved to a point at which an operation might be considered, and thirty-seven occurred postoperatively.[3] The same greater frequency of preoperative deaths from crisis was reported by Lahey [4] in 1928.

Our interest in thyroid crisis was aroused because of the apparent futility of treatment once this complication becomes well established. This particular ineffectiveness has been recognized for years, and emphasis has properly been placed on elimination of the factors known to precipitate a crisis and on the adequate use of measures to ward off or lessen an impending crisis,[4] whether it is before or after the operation. As a result of constant vigilance, the reaction of the majority of patients operated on for hyperthyroidism is now mild. In a few instances the fever, tachycardia, sweating and restlessness are a little greater than desired, but usually these signs subside in from twenty-four to forty-eight hours. Fortunately a reaction severe enough to be called a thyroid crisis is encountered only at rare intervals.

As one observes a patient in a thyroid crisis the impression is that profound toxemia is present. Metabolic processes appear to be so tremendously disturbed that some alteration in body chemistry producing the effect ought to be discoverable and ought to be measurable if only one knew what to measure. In the hope of finding significant data in this regard we made a number of preoperative and postoperative studies of the blood chemistry on patients with hyperthyroidism during the past two years.[5] The investigating staff was constantly on the alert to apply the studies to patients with severe reactions, and a few patients in typical thyroid crisis were available.

CHIEF ELECTROLYTES OF THE BLOOD

It is reasonable to believe that if any serious disturbance of the electrolytes were present in the blood of patients with hyperthyroidism the abnormality would have been found previously, since extensive general studies have been made. A few suggestions for possible investigation, however, were found.

Sodium.—Schneider [6] has reported extreme depletions of the serum sodium content in hyperthyroidism, one patient having only 53 mg. per hundred cubic centimeters, which is about 16 per cent of the normal. We found essentially normal values for serum sodium for ten patients with hyperthyroidism, two of whom died preoperatively and one postoperatively of thyroid crisis.[7] This lead was not helpful to us or to Feldmaus [8] and Pemberton.[1]

Potassium.—A study of this ion in relation to thyroid crisis was suggested for three reasons: (1) the fact that potassium is a toxic substance,[9] (2) the statement that all the effects of epinephrine—a substance possibly concerned with thyroid crisis—can be produced by potassium [10] and (3) the fact that the serum potassium content is found to be increased immediately after injections of epinephrine.[11] Determinations of the serum potassium were made on fifteen patients with hyperthyroidism, and the values obtained were all essentially normal, even the value for a specimen taken postoperatively two hours before death from a patient with a temperature of 105 F. Pemberton [1] found a normal serum potassium content in two patients dying from severe postoperative hyperthyroid reactions. Serum potassium values much higher than any we

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1. Goetsch, Emil: Criteria of Operability for Goiter, Minnesota Med. **18**: 631 (Oct.) 1935. Pemberton, J. deJ.: Postoperative Hyperthyroid Crisis, West. J. Surg. **44**: 521 (Sept.) 1936.
2. Bayley, R. H.: Thyroid Crisis, Surg., Gynec. & Obst. **59**: 41 (July) 1934.
3. Ransom, H. K., and Bayley, R. H.: Thyroid Crisis, West. J. Surg. **42**: 464 (Aug.) 1934.
4. Lahey, F. H.: The Crisis of Exophthalmic Goiter, New England J. Med. **199**: 255 (Aug.) 1928.
5. Maddock, W. G.; Coller, F. A., and Pedersen, Svend: Thyroid Crisis: Its Relation to Liver Function and Adrenalin, West. J. Surg. **44**: 513 (Sept.) 1936.
6. Schneider, Erich: Concerning the Broadening of the Indications for Operation in Exophthalmic Goiter Through the Recognition at the Bedside of a Secondary Thyrogenic Injury to the Liver, Internat. Clin. **2**: 87 (June) 1934.
7. Pedersen, Svend; Maddock, W. G., and Coller, F. A.: Serum Sodium in Relation to Liver Damage and Hyperthyroidism, Proc. Soc. Exper. Biol. & Med. **36**: 491 (May) 1937.
8. Feldmaus, B.: Ueber das Verhalten des Natriumsspiegels im Blutserum bei thyreotoxischen Zustanden, Acta med. Scandinav. **88**: 39, 1936.
9. Blake, J.: Observations on the Physiological Effects of Various Agents Introduced into the Circulation, as Indicated by the Hemodynamometer, Edinburgh M. J. **31**: 330, 1829.
10. Camp, W. J. R., and Higgins, J. A.: The Rôle of Potassium in Epinephrine Action, J. Pharmacol. & Exper. Therap. **57**: 376 (Aug.) 1936.
11. D'Silva, J. L.: The Action of Adrenaline on Serum Potassium, J. Physiol. **80**: 219 (Feb. 8) 1934; Action of Adrenaline on the Perfused Liver, ibid. **87**: 181 (July 21) 1936.

found have been observed in patients with other conditions [12] showing no evidence of toxicity.

Calcium and Phosphates.—More than forty years ago it was pointed out that disorders of the bony skeleton appeared to be associated with hyperthyroidism. That the administration of thyroid gland to rabbits markedly increases the urinary output of calcium was definitely shown by Parhon,[13] and Aub and his associates [14] furnished conclusive proof of an

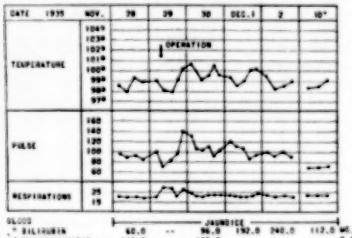

Chart 1 (case 1).—Mild postoperative course in spite of considerable evidence of impaired hepatic function.

increased excretion of calcium and inorganic phosphate by human beings with hyperthyroidism. In spite of this marked abnormality Aub [14] found normal values for these constituents in the serum. Similar normal values were found for the patients of this study.

In summary, our search for abnormalities of inorganic ion concentrations in the blood of patients with hyperthyroidism has not been fruitful.

HEPATIC FUNCTION IN HYPERTHYROIDISM

From various sources evidence has accumulated to show that damage to the liver occurs in hyperthyroidism. Clinical reports of jaundice [15] are not infrequent, and the diagnosis of acute yellow atrophy [16] has been made on a few occasions. In a study of the hepatic pathology, Weller [17] observed well marked chronic parenchymatous hepatitis at autopsy in twenty-two of forty-four selected cases of exophthalmic goiter, while but one example of the same degree of change was found in a control series of the same number of autopsies. Beaver and Pemberton [18] similarly found a high incidence of degenerative changes in the liver of patients dying of hyperthyroidism. Studies of the hepatic function are in accord with these data, Youmans and Warfield [19] having shown impairment in the excretion of phenoltetrachlorphthalein dye in 50 per cent of forty-four patients studied. From a review of hepatic function tests dealing with the disturbance of carbohydrate metabolism, Kugelmann [20] concluded that not only does the liver of the hyperthyroid subject show a failure to store glycogen but it is unable to convert large amounts of levulose to dextrose, a process easily accomplished by the normal liver.

With this evidence of disturbed hepatic function and severe hepatic disease at hand, our point of interest was whether or not the postoperative reaction of the patients was due to hepatic damage. The pathologic process in the liver was certainly extensive, and of possible significance is the fact that hyperthermia accompanies other so-called liver deaths.[21]

From the considerable number of tests available [22] for estimations of hepatic function, three measurements were chosen: (1) the blood bilirubin contents, (2) the excretion of bromsulfalein dye and (3) the amino acid nitrogen content of the blood. This selection was made for the following reasons:

The finding of abnormal amounts of bilirubin in the blood stream reflects the bilirubin excretory function of the liver unless excessive amounts of bilirubin are being formed as a result of increased hemolysis of erythrocytes. If this condition has not occurred and there is no obstruction to the excretory ducts of the liver, the finding of hyperbilirubinemia indicates impairment of function of the liver parenchyma. Studies have shown that such impairment must be moderately advanced and generalized before abnormal values for blood bilirubin, above 3 mg. per liter, are obtained. From the extent of the hepatic lesions observed at autopsy on patients who died of hyperthyroidism, abnormal results from this test were expected.

Among the various dye excretion tests, that in which bromsulfalein is used and 5 mg. per kilogram of body weight [23] administered was most desirable. As for the

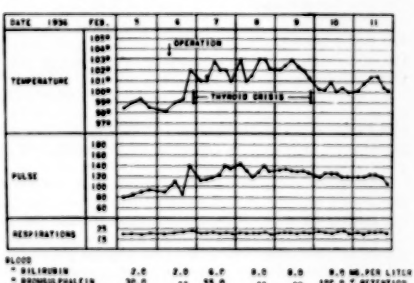

Chart 2 (case 21).—Severe postoperative thyroid crisis with only moderate evidence of impaired hepatic function.

determination of bilirubin, rather widespread and extensive hepatic disease is necessary to cause an abnormal result, which is more than 10 per cent retention of the dye at the end of one-half hour. An advantage of this test for a continued study, such as ours, was

12. Keith, N. M., and Binger, N. W.: Diuretic Action of Potassium Salts, J. A. M. A. **105**: 1584 (Nov. 16) 1935.
13. Parhon, M.: L'influence de la thyroide sur le metabolisme du calcium, Compt. rend. Soc. de biol. **72**: 620 (March) 1912.
14. Aub, J. C.; Bauer, Walter; Heath, Clark, and Rupes, Marion: Studies of Calcium and Phosphorus Metabolism: III. The Effects of the Thyroid Hormone and Thyroid Disease, J. Clin. Investigation **7**: 97 (April) 1929.
15. Eder, M. D.: Three Cases of Jaundice Occurring in Persons Suffering from Exophthalmic Goiter, Lancet **1**: 1258 (June) 1906. Mahorner, H. R.: Jaundice Associated with Hyperthyroidism, New Orleans M. & S. J. **87**: 382 (Dec.) 1934.
16. Kerr, W. J., and Rusk, G. Y.: Acute Yellow Atrophy Associated with Hyperthyroidism, M. Clin. North America **6**: 443 (Sept.) 1922. Raab, W., and Terplan, C.: Morbus Basedowii mit subakuter Leberatrophie, Med. Klin. **19**: 1154 (Aug.) 1923.
17. Weller, C. V.: Hepatic Pathology in Exophthalmic Goiter, Ann. Int. Med. **7**: 543 (Nov.) 1933.
18. Beaver, D. C., and Pemberton, J. deJ.: The Pathologic Anatomy of the Liver in Exophthalmic Goiter, Ann. Int. Med. **7**: 687 (Dec.) 1933.
19. Youmans, J. B., and Warfield, L. M.: Liver Injury in Thyrotoxicosis as Evidenced by Decreased Functional Efficiency, Arch. Int. Med. **37**: 1 (Jan.) 1926.
20. Kugelmann, Bernhard: Ueber Störungen im Kohlehydratstoffwechsel beim Morbus Basedow, Klin. Wchnschr. **9**: 1533 (Aug.) 1930.
21. Boyce, F. Fitzherbert, and McFetridge, E. M.: So-Called "Liver Death": A Clinical Study, Arch. Surg. **31**: 105 (July) 1935.
22. Soffer, L. J.: Present Day Status of Liver Function Tests, Medicine **14**: 185 (May) 1935.
23. Soffer, L. J. (New York): Personal communication to the author. Bollman, J. L. (the Mayo Clinic): Personal communication to the author.

brought out by Soffer,[22] who stated that, although there is apparently only a rough quantitative relationship between the degree of retention of the injected dye and the hepatic damage in any patient who is observed over an extended period with this test, the results will indicate whether the hepatic lesion is becoming more extensive or is regressing.

The determinations of the amino acid nitrogen in the blood[24] were a search for evidence of profound hepatic damage. The deaminization of amino acids in man occurs mainly in the liver, and this function is lost only in the terminal stage of acute yellow atrophy.[25] For the patients with hyperthyroidism essentially normal values were found, and the data obtained will be shown in only two cases (charts 1 and 2).

4. On succeeding days the hepatic function of the patients improved, a variable time being necessary before it returned to the preoperative level.

Evidence of Impaired Hepatic Function in Patients with Hyperthyroidism from Data on the Blood Bilirubin and the Bromsulfalein Excretion

Toxic Goiter	Age	Preoperative: Basal Metabolic Rate	Preoperative: Blood Bilirubin Content, Mg.	Preoperative: Dye Retention,* %	Day of Operation: Mg.	Day of Operation: %	Postoperative Days I: Mg.	I: %	II: Mg.	II: %	III: Mg.	III: %	IV: Mg.	IV: %		Mg.	%
1	30	+23	2	10	..	..	8	110	2	55	...	...	..	...	VI	2	10
2	42	+22	2	10	..	..	10	100	...	..	6	55	..	...	VI	2	10
3	42	+34	2	10	..	..	6	80	...	..	...	...	..	...	VIII	2	5
4	33	+19	2	10	..	..	24	...	...	..	...	...	12	...	VII	4	..
5	49	+26	3	60	12	+60	12	90	...	..	10	50	..	...	V	1	55
6	30	+55	2	20	..	..	8	115	...	..	4	90	..	...	V	2	10
7	60	+39	3	60	..	..	8	120	...	..	...	...	..	...	XV	2	50
8	60	+30	4	35	..	..	2	100	...	..	...	...	4	100			
9	61	+39	2	50	..	..	15	170	...	..	12	150	..	...	XIV	..	20
10	65	+45	60	110	..	..	96	120	192	..	240	...	..	...	XI	112	..
11	39	+17	4	20	..	..	12	120	...	..	...	...	..	...	X	2	100
12	17	+20	2	30	2	..	6	55	8	..	8	...	8	100	XV	8	20
13	36	+25	2	40	..	..	2	80									
Nontoxic Goiter																	
14	36	+ 2	2	0	..	..	2	5	...	..	2	20					
15	27	+ 2	2	5	..	..	2	10	...	..	...	..					
16	20	+11	2	5	..	..	4	25	...	..	2	50					
17	35	— 2	2	10	..	..	3	30	...	..	...	...			VI	2	40

* Retention of 100 per cent or more of the dye is considered to be total. The apparent paradox of more than 100 per cent retention is due to the fact that the colorimeter standards developed originally for the administration of 2 mg. of the dye per kilogram of body weight have been retained although a 5 mg. dose is used.[23] Differentiation of color with higher standards was found to be difficult.

In the accompanying table are presented the values for blood bilirubin and the data on bromsulfalein for the seventeen patients studied. The following points were significant:

1. Eight, or 61 per cent, of the thirteen patients with toxic goiter showed evidence of impaired hepatic function preoperatively, by having a blood bilirubin content above 3 mg. per liter, a retention of bromsulfalein dye of more than 10 per cent or both.

2. A relationship between the severity of the hyperthyroidism and the hepatic damage was shown, first, by the finding of normal hepatic function in four patients with nontoxic thyroids studied as a control group and, secondly, by the finding of an average basal metabolic rate of only +33 per cent for the five toxic patients with normal hepatic function, in contrast to an average of +54 per cent for the eight toxic patients with evidence of hepatic damage. The same direct relationship between the extent of the pathologic process in the liver and the severity of the disease was found by Beaver and Pemberton[18] in a correlation of clinical and postmortem data.

3. The operation produced a marked effect. On the first postoperative day the data, whether normal before or not, showed a striking impairment of hepatic function, the blood bilirubin content being above normal and the retention of dye being practically complete in the majority of cases. Using the hippuric acid test on a group of patients with hyperthyroidism, Lahey and Bartels[26] found increased impairment of the hepatic function on the sixth postoperative day. Patients operated on for other diseases have not regularly shown the same disturbance of hepatic function.[27] This evidence of hepatic dysfunction on the day after the operation is in accord with the observation of a high percentage of acute degenerative changes in the liver of patients who have died of hyperthyroidism, many in the immediate postoperative period.

5. No definite correlation was found between the data on hepatic function and the mildness or severity of the postoperative reaction. Three cases in particular emphasized this:

Case 1.—*Considerable evidence of hepatic damage and mild postoperative reaction.* E. H., a woman, aged 46, on admission to the hospital had a history of goiter of thirty years' duration, symptoms of severe thyrotoxicosis for two years and intermittent jaundice for the past six months. No cause for the jaundice except toxic hepatitis could be found. The course in the medical service was unsatisfactory; the basal metabolic rate increased from +36 per cent to +60 per cent, the jaundice increased and a continued loss of weight and diarrhea occurred. Operative treatment was decided on, and a right hemithyroidectomy was done. Postoperatively the patient's general condition was good in spite of a marked rapid increase in the yellowness of the skin to a canary color. The clinical observations, showing a comparatively mild postoperative reaction, and the data on hepatic function, with, most significantly, the blood bilirubin up to 240 mg. per liter on the third postoperative day, are given in chart 1. At an examination three months later the blood bilirubin content was normal.

Cases 2 and 3.—*Only moderate evidence of hepatic damage and severe thyroid crisis postoperatively.*

In D. H., a girl, aged 17, goiter developed three years previous to admission. All the symptoms and signs of exophthalmic goiter were present. The initial metabolic rate was +70 per cent, and the subsequent improvement was

24. Danielson, J. S.: Amino Acid Nitrogen and Its Determination, J. Biol. Chem. **101**: 303 (July) 1933.
25. Stadie, W. C., and Van Slyke, D. D.: The Effect of Acute Yellow Atrophy on Metabolism and on the Composition of the Liver, Arch. Int. Med. **25**: 693 (June) 1920.
26. Lahey, F. H.: Stage Operations in Severe Hyperthyroidism (citing the work of C. E. Bartels in the medical department of the Lahey Clinic), Ann. Surg. **104**: 961 (Dec.) 1936.
27. Coleman, F. P.: Unpublished data.

irregular and slow. Severe thyroid crisis developed about eight hours after a right hemithyroidectomy was done and continued for three days. The clinical observations and the data on the blood chemistry are shown in chart 2. The blood bilirubin content and the retention of bromsulfalein during the time of the crisis were not nearly as high as the values found for several other patients with comparatively normal postoperative courses. Throughout the height of the reaction the amino acid nitrogen content of the blood, which is increased in profound hepatic damage, was unchanged. The occurrence of acute pulmonary edema during the crisis and the epinephrine study will be discussed later.

V. B., a woman, aged 36, was admitted to the medical service in a condition of thyroid crisis. The first metabolic rate obtained was +75 per cent. With careful treatment her response was considered to be satisfactory enough to allow multiple stage operations. Approximately thirty hours after a hemithyroidectomy a typical crisis developed, and she died twelve hours later. Evidence of hepatic damage twenty hours before death was only moderate. The amino acid nitrogen content of the blood was entirely normal. This patient also had acute pulmonary edema during the thyroid crisis.

In summary, two conclusions from the studies on hepatic function were of particular interest. First, the data on preoperative hepatic function gave no indication as to the mildness or severity of the postoperative course. Second, in the postoperative period an increase in the incidence and the degree of impaired hepatic function and an increase in hyperthyroid reactions were found, but there was no evidence to show that one was the cause of the other. A third factor could be responsible for both.

EPINEPHRINE

In this country the relationship between the nervous system, the adrenals and the thyroid gland has repeatedly been emphasized. Crile [28] has on many occasions pointed out the interdependence of these structures and bases his treatment of hyperthyroidism on the concept that it is a disorder of the entire kinetic system. In a recent article on postoperative hyperthyroid reactions, Pemberton [1] presented the following two theories as to cause: (1) sudden increase in amount of thyroid secretion (either normal or abnormal) and (2) hypersecretion of epinephrine. In the discussion of these theories the evidence was much stronger for the latter. In 1914 Cannon [29] showed that pain and strong emotional factors stimulate the suprarenal medulla to greater activity. With Cattell [30] he showed that injections of epinephrine induce secretory activity of the thyroid gland. Levy [31] added the fact that thyroid secretion sensitizes the sympathetic system to epinephrine. Guided by Levy's work, in 1918 Goetsch [32] brought out a test for early hyperthyroidism, the significant finding being an increased response to injected epinephrine. Of particular significance in regard to the theory that excessive secretion of epinephrine causes thyroid crisis was the observation of Goetsch and Ritzmann [33] that the operative reaction is identical in nature with the preoperative responses of the same patient to a subcutaneous injection of epinephrine, the variation being only in degree.

From this discussion it is evident that a measurement of the epinephrine content of the blood of patients with hyperthyroidism would be of value. Such measurements were done in the early part of this century, and although the methods employed have been criticized the results are worthy of mention. Fraenkel [34] in 1909, using a rabbit uterus procedure, reported the finding of increased amounts of epinephrine in the blood of three patients who had exophthalmic goiter. Bröking and Trendelenburg [35] in 1911, using a method dependent on the perfusion of the vascular system of frogs, reported increased epinephrine in four out of five cases studied.

In January 1936 we began to use the method developed by Whitehorn [36] for the estimation of epinephrine in venous blood. Two chemical principles are involved: (1) the use of silicic acid for the separation of epinephrine from other substances which might interfere with the test and (2) the reduction of arsenomolybdic acid by epinephrine, the resultant blue solution being read colorimetrically. The sensitivity of this test is indicated by Whitehorn's experiments, in which an average of 92 per cent of epinephrine added to blood was recovered and epinephrine detected when its concentration reached or exceeded 1 part in 50,000,000. This amount is believed to be about twenty times greater than the concentration in normal venous blood.[37]

The test was performed on sixteen patients with hyperthyroidism, both before and after the operation. The result was negative in five and positive in eleven. In four of the latter thyroid crisis developed; two died preoperatively and one postoperatively. The most positive value obtained was for patient D. H. (chart 2), who had the most severe thyroid crisis seen during the past two years. The reaction became negative shortly after the crisis subsided.

In a consideration of these data there was much to be desired. The Whitehorn test, in the first place, is still an unproved method when one is dealing with disease conditions, and, secondly, it has never been checked against methods of biologic assay. In addition, the methods of biologic assay advocated at this time have not been used on patients showing severe postoperative hyperthyroid reactions. It seemed logical to carry out such studies.

Of the procedures for biologic assay available, the combination used by Stewart [38] and Rogoff [37] appeared to be most desirable.[39] This consists of an inhibition of the contractions of a rabbit intestinal strip and an augmentation of the contractions of the rabbit uterus. As far as is known, only epinephrine will produce these two effects, and the reaction is roughly quantitative.

In four patients with hyperthyroidism the Whitehorn test and the biologic assay [40] were employed. The following case was chosen for consideration:

CASE 4.—J. S., a man, aged 27, had the symptoms and signs of severe exophthalmic goiter six months prior to admission. The loss of weight was 40 pounds (18 Kg.). An early basal

28. Crile, G. W.: The Interdependence of the Thyroid, Adrenals and Nervous System, Am. J. Surg. **6**: 616 (May) 1929.

29. Cannon, W. B.: The Emergency Function of the Adrenal Medulla in Pain and the Major Emotions, Am. J. Physiol. **33**: 356 (Feb.) 1914.

30. Cannon, W. B., and Cattell, McK.: Studies on the Conditions of Activity in Endocrine Glands: III. The Influence of the Adrenal Secretion on the Thyroid Gland, Am. J. Physiol. **41**: 74 (July) 1916.

31. Levy, R. L.: Studies on the Conditions of Activity in Endocrine Glands: IV. The effect of Thyroid Secretion on the Pressor Action of Adrenin, Am. J. Physiol. **41**: 492 (Oct.) 1916.

32. Goetsch, Emil: Newer Methods in the Diagnosis of Thyroid Disorders, Pathologic and Clinical, New York State J. Med. **18**: 239 (July) 1918.

33. Goetsch, Emil, and Ritzmann, A. J., Jr.: Thyroid Disorders: VI. The Suprarenal Factor in Reactions to Thyroidectomy, Arch. Surg. **29**: 492 (Sept.) 1934.

34. Fraenkel, A.: Ueber den Gehalt des Blutes an Adrenalin bei chronischer Nephritis und Morbus Basedowii, Arch. f. exper. Path. u. Pharmakol. **60**: 395 (June) 1908-1909.

35. Bröking, E., and Trendelenburg, P.: Adrenalinnachweis und Adrenalingehalt des menschlichen Blutes, Deutsches Arch. f. klin. Med. **103**: 168 (June) 1911.

36. Whitehorn, J. C.: A Chemical Method for Estimating Epinephrine in Blood, J. Biol. Chem. **108**: 633 (March) 1935.

37. Rogoff, J. M. (University of Chicago): Personal communication to the author.

38. Stewart, G. N.: So-Called Biological Tests for Adrenalin in Blood, with Some Observations on Arterial Hypertonus, J. Exper. Med. **14**: 327 (Oct.) 1911.

39. Guidance was given by Dr. J. M. Rogoff, University of Chicago, in the carrying out of the biologic assay methods.

40. Dr. Carl Moyer performed the biologic assay determinations.

metabolic rate was reported as + 105 per cent. The response to preparatory treatment was good, but multiple stage operations were considered advisable. A right hemithyroidectomy was done on May 25. Chart 3 shows the postoperative reactions of temperature and pulse and the results of the epinephrine determinations.

As can be seen in chart 3, the Whitehorn test, which was positive both preoperatively and on the first postoperative day, was negative on the third postoperative day. With the rabbit intestinal segment an epinephrine-like reaction was obtained preoperatively and on three occasions postoperatively. It was of interest that the peak of the postoperative hyperthyroid reaction was coincident with the greatest value obtained by biologic assay. The reaction of the intestinal segment obtained at this time, the first postoperative day, was similar to the effect of 1 part in 30,000,000 of epinephrine. This concentration is from ten to thirty times the normal and corresponds to such concentrations in systemic blood as might be obtained if all the epinephrine liberated from the adrenal glands by powerful stimulation of the

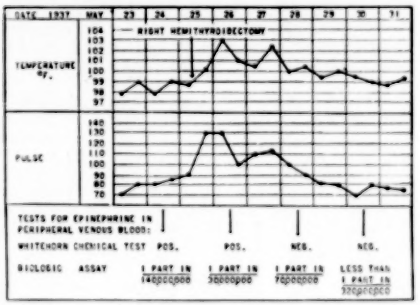

Chart 3 (case 4).—Data from tests for epinephrine in the peripheral venous blood of a patient with hyperthyroidism, with special reference to the postoperative hyperthyroid reaction.

splanchnic nerves remained in the circulation.[41] The results in the other three cases were essentially the same as in this one.

In relation to the possibility of increased amounts of epinephrine in the blood, two other observations on patients with postoperative hyperthyroid reactions are worthy of further thought:

1. *Pulmonary Edema.*—During three typical examples of severe postoperative thyroid crisis observed during the past two years the raising of large amounts of frothy, slightly blood-tinged sputum was an alarming finding. Two of the patients died, and at the autopsy on one patient marked edema of the lungs, with confluent, acute, fibrinopurulent, lobular pneumonia was observed. A diffuse pneumonic process of varying degrees is mentioned among the postoperative complications by most authors, but pulmonary edema has received little attention. Patient D. H. (chart 2), the third patient in whom pulmonary edema was noted, recovered from this complication rather suddenly on the afternoon of the third day of her crisis (February 9) and was out of the crisis on the following morning. At this time (February 10) the chemical test for epinephrine, which previously had been positive, was found to be negative.

41. Rogoff, J. M.: Personal communication to the authors.

As mentioned before, Goetsch[23] has shown that all the common operative reactions in the patient with hyperthyroidism can be brought out by the administration of epinephrine hydrochloride to the same patient prior to the operation. Can excessive amounts of epinephrine be responsible for the pulmonary edema observed by us? The literature furnished significant data in this regard.

In 1902 Bouchard and Claude[42] observed pulmonary edema and death in the normal rabbit after the intravenous injection of epinephrine. Auer and Gates[43] have published some exceptionally fine colored plates showing this phenomenon; they demonstrated that when the vagi are divided smaller doses of epinephrine are effective in producing the edema and that atropine then exerts a protective action. In the clinical literature, reports[44] were found of pulmonary edema occurring in the presence of chromaffin cell tumors, which are known to secrete epinephrine. Also, a fatality has been reported[45] due to the accidental administration of 75 cc. of 1 to 1,000 epinephrine solution subcutaneously, death occurring four hours after the onset of acute pulmonary edema. This is a tremendous dose, but experimentally in rabbits it has been shown[46] that when administered subcutaneously large doses are necessary to produce this effect.

From references cited there is evidence for the belief that pulmonary edema seen in instances of thyroid crisis can be the result of increased amounts of circulating epinephrine. We consider that in the past we have overlooked this respiratory complication, in many instances attributing the cyanosis and the excessive mucus to bronchopneumonia and tracheitis.

2. *Epinephrine Disturbing Liver Function.*—At this point it seemed logical to inquire whether the disturbance in hepatic function and the pathologic changes in the liver of patients with hyperthyroidism could be due to epinephrine. Besides the production of pulmonary edema already mentioned, early work with adrenal extract showed that it disturbed the carbohydrate metabolism of the liver[47] and that the liver was intimately concerned with destruction of epinephrine.[48] In 1934 Perazzo[49] demonstrated in dogs that moderate doses of epinephrine injected intravenously produce well advanced fatty degenerative changes. This pathologic process is essentially the major acute lesion observed by Weller[17] and Beaver and Pemberton[18] in the liver of patients who died of hyperthyroidism.

COMMENT

From the several studies discussed in this paper, two observations merit comment:

1. Impairment of hepatic function was not found to be the cause of postoperative hyperthyroid reactions, but its presence to a considerable degree in the immediate

42. Bouchard, C., and Claude, H.: Recherches expérimentales sur l'adrénaline, Compt. rend. Acad. d. sc. **135**:928 (Dec.) 1902.

43. Auer, J., and Gates, F. L.: Experiments on the Causation and Amelioration of Adrenalin Pulmonary Edema, J. Exper. Med. **26**:201 (Aug.) 1917.

44. Coller, F. A.; Field, Henry, Jr., and Durant, T. M.: Chromaffin Cell Tumor Causing Paroxysmal Hypertension, Relieved by Operation, Arch. Surg. **28**:1136 (June) 1934.

45. Wichels, P., and Lauber, H.: Ueber das Adrenalinlungenödem: Klinische Beobachtungen und experimentelle Studien, Ztschr. f. klin. Med. **119**:42 (Dec.) 1931.

46. Batelli, F., and Taramasio, P.: Toxicité de la substance active des capsules surrénales, Compt. rend. Soc. de biol. **54**:815 (June) 1902.

47. Blum, F.: Ueber Nebennierendiabetes, Deutsches Arch. f. klin. Med. **71**:146 (Oct.) 1901.

48. Athanasiu and Langlois: Du rôle du foie dans la destruction de la substance active des capsules surrénales, Compt. rend. Soc. de biol. **41**:575 (June) 1897.

49. Perazzo, Giorgio: Lesioni istologiche da adrenalina del parenchima di alcuni organi interni, Pathologica **26**:745 (Nov.) 1934.

postoperative period was definitely shown. Since the protective action of carbohydrates on the liver has been definitely established, the occurrence of impaired hepatic function in the immediate postoperative period of patients operated on for hyperthyroidism is an excellent reason for the administration of dextrose solutions at this time. For most surgeons [50] this treatment is a matter of routine in the care of such patients, and from experience its value has been proved.

2. Concerning this preliminary report on the finding in the blood of patients with hyperthyroidism of increased amounts of a substance which yields biologic reactions similar to those of epinephrine, no positive identification of this substance as epinephrine can be made at this time. Confirmatory tests are now being carried out.

The occurrence of thyroid crisis has been definitely decreased by better preparation of the patients, by selective operative procedures and by adequate postoperative care. With further knowledge of the cause of thyroid crisis, specific measures may be possible to avoid this serious complication.

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ABSTRACT OF DISCUSSION

DR. GEORGE CRILE JR., Cleveland: The development of the Whitehorn test for epinephrine opens a wide field for research. It will be interesting to see whether a positive test for epinephrine is a finding specific for patients in thyroid crisis. It is possible that the terminal phase of any condition associated with circulatory failure, pulmonary edema or anoxemia may call forth an emergency output of epinephrine. If this should prove to be the case, a positive epinephrine test might indicate the presence of severe anoxemia rather than a specific thyroadrenal relationship. Dr. Crile Sr., Dr. Dinsmore and I have recently studied 200 cases of hyperthyroidism. In this group there were four instances of liver failure. The onset of symptoms was usually on the third postoperative day, always well after the peak of the postoperative pulse and temperature reaction. The first indication of hepatic insufficiency was confusion or delirium, accompanied by an elevation of the icterus index to as high as 75, the average being 42. Three of the four patients who presented clinical evidence of liver failure were over 60 years of age, an observation that is consistent with Beaver and Pemberton's autopsy results. In their series, atrophy and cirrhosis of the liver was more marked in elderly patients with hyperthyroidism than in patients in the younger age groups. The figures of Dr. Maddock and his co-workers also show a correlation between the diminution of liver function and the age of the patients. Thus the degree of hepatic impairment would appear to be related to the age of the patient as well as to the severity of the hyperthyroidism. I agree that a solution of dextrose given by the continuous intravenous drip method is of great value not only in the prevention and control of thyroid crisis but also in combating liver failure. But 5 liters of 5 per cent dextrose solution contains only 1,000 calories, and the caloric intake necessary to maintain weight in a patient with a basal metabolic rate of plus 100 per cent may be as high as 5,000 calories a day. When after operation such a patient stops eating, it is vital to restore the metabolic equilibrium by restoring the intake of food. If food is refused, forced feedings can be given through a nasal tube. I have seen delirium which did not respond to any other method of treatment clear up rapidly following restoration of caloric intake by high carbohydrate feedings given through a nasal tube.

DR. JOHN PAUL NORTH, Philadelphia: The authors have made a distinct contribution in demonstrating an increase of epinephrine in the blood in hyperthyroidism and this is further evidence of the close relationship between the thyroid and adrenal glands. The proof that this increased epinephrine is the cause of thyroid crisis requires more evidence than has been presented. The case in favor of epinephrine rests on laboratory tests the interpretation of which is no more certain than that of the liver function tests. These admittedly are not very satisfactory. The Whitehorn test has not been subjected to extensive clinical trial. Its originator confesses inherent difficulties which limit the accuracy of the method to dilutions in excess of one part of epinephrine in 50 million, yet in one of the cases just reported a positive Whitehorn test is recorded in which the corresponding biologic assay showed a dilution of one in 120 million. Obviously the concentrations of epinephrine encountered in human venous blood approach the range of probable error of the method itself. It is well known that anoxemia stimulates the production of epinephrine. Thus, if nitrous oxide or avertin with amylene hydrate was used in Dr. Maddock's case, the associated anoxemia might well account for the postoperative disturbances shown. Any control of this anesthetic factor would be difficult, since even with local anesthesia the psychic stimulus of fright could operate to increase the content of epinephrine. It is difficult to accept the relationship between epinephrine and pulmonary edema. Freeman's studies on surgical shock indicate that the effect of increased production of epinephrine is dehydration. Congestion of the lung has been seen as a terminal development in thyroid crisis and it has appeared logical to explain it on the basis of cardiac failure. From the practical standpoint, genuine thyroid crisis is not encountered as frequently as a few years ago. The improvement can be attributed, as Dr. Maddock and his co-workers have intimated, to various factors, the chief of which are surgery earlier in the course of the disease, careful preoperative preparation of the patient, and the administration during the immediate postoperative period of adequate amounts of fluid and dextrose. Six years ago I began giving to all severely toxic patients dextrose solution by continuous intravenous drip for several days after operation. In approximately 950 operations for toxic goiter at the Hospital of the University of Pennsylvania during these last six years, only two patients have developed crisis after operation and in one of these the dextrose routine was not followed. The benefits which patients obtain from this therapy are probably due to the provision of a readily available fuel and also to the correction of fluid balances. Accumulating evidence points to the fact that one does not restore the depleted glycogen content of the liver by simply administering dextrose, as it was originally believed that it was possible to do.

DR. WILLARD BARTLETT JR., St. Louis: It may be recalled that last year before this section I reported the use of the continuous neutral bath for the treatment of thyroid crisis, thus, by providing the "engine" with a better "radiator," being able to separate the phenomena due to hypercombustion from those due to toxemia. The significant point is that some patients die in thyroid crisis even after an afebrile course in the neutral bath. A study of the variations in the blood amylase during the immediately postoperative phase discloses that the amylase drops sharply within eight hours of thyroidectomy for toxic goiter and stays at this low level for forty-eight hours, rising only slowly thereafter; the preoperative level may not have been regained at discharge on the fifth postoperative day. Enucleation of a nontoxic adenoma is not followed by any variation in the blood amylase. This quantitative method was developed by Somogyi and is considered to be the most delicate test of liver function that is available. Until evidence to the contrary is forthcoming, impaired liver function will have to be considered as responsible for some portion of the manifestations of thyroid crisis.

DR. WALTER G. MADDOCK, Ann Arbor, Mich.: Drs. Crile, North and Bartlett have added to this interesting subject, and I wish to thank them for their discussion. Much more work will be necessary to establish the exact cause of thyroid crisis. I feel that I am just beginning on the question of epinephrine concentration being increased, and I am looking forward with pleasure to further work on the same subject.

50. North, J. P.: Symposium on Thyroid Disease: The Use of Continuous Venoclysis of Glucose After Thyroid Operation, Pennsylvania M. J. **36**: 495 (April) 1933. Dinsmore, R. S., and Crile, G. W., Jr.: The Significance and Treatment of Delirium or Confusion Following Thyroidectomy for Hyperthyroidism, Cleveland Clin. Quart. **4**: 103 (April) 1937.

THE TRAINING OF THE STUDENT IN WHAT IS INVOLVED IN ADEQUATE MEDICAL CARE

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During recent years there has been a feeling on the part of many medical educators that there has developed too great a tendency in the undergraduate curriculum to stress disease rather than the patient suffering from disease.

Although the discontinuance of the preceptorship and the institutionalizing of medical education was an important and necessary development, it did tend to emphasize to the student the details of disease processes and to minimize a consideration of the patient as an individual. Students became inclined to view patients more or less abstractly in terms of specific diseases; e. g., a case of pneumonia or a case of mitral stenosis.

The recent rapid advances in the physical and chemical aspects of medicine with the development of a large number of technical procedures useful in both the diagnosis and the treatment of disease have tended to submerge further a consideration of the patient as an individual reacting to a myriad of conditions of which the disease itself is but a part.

The successful practice of medicine requires an appreciation of the influence that heredity, social and environmental factors and individual peculiarities exert on the course of illness. As stated by Dr. Longcope,[1] "There is no separation of man from his disease or of disease from man. . . . It is the patient and not the typhoid bacillus that presents to us the disease typhoid fever; it is the violently disturbed reaction of the patient to the abnormal action of the thyroid gland, not thyroxine, that gives us Graves' disease; and it is the more or less successful efforts of the patient to overcome a stricture of the mitral orifice, not the stenosis itself, that produces the picture called heart disease."

It is undoubtedly true that most physicians who enter the field of general practice eventually have these truths impressed on them. However, the nature of medical practice, especially in the more metropolitan areas, is changing to such an extent that personal and environmental factors do not stand out in bold relief as they do in the more intimate relationships of the "old time family doctor."

The psychiatrists have incorporated in the undergraduate curriculums of many schools courses in psychobiology to emphasize the importance of personality in the development of mental diseases. Other clinical teachers have been thereby stimulated to stress a consideration of patients as individuals. With the development of medical social work, certain schools have also included in the curriculum seminars and conferences between medical social workers and students.[2] In a few instances, students have been required to visit the homes of patients.

Our object in this paper is to describe briefly a procedure with which we at Syracuse have been experimenting since 1930 in the hope that it would give our students a better point of view toward all the problems involved in adequate medical care. The program was supported by a grant from the Josiah Macy Jr. Foundation. The procedure we adopted was suggested by Dr. Ira Hiscock, who had followed a somewhat similar plan in teaching public health. Our program has involved placing of responsibility on each student for a complete study of at least one patient who has been assigned to him as a clinical clerk on the hospital wards.

At the beginning, the home visits connected with these studies were supervised by the hospital social worker. However, it was our experience that such supervision tended to routinize the work of the student and failed to develop initiative and the coordination that was essential to a satisfactory point of view toward the case as a whole. After several years of experimenting, the program has developed until it is now conducted as follows: Each clinical clerk is assigned a patient for investigation. The patient selected is one whom he has studied in the hospital from the clinical point of view. An effort is made to avoid cases in which the diagnosis is doubtful and to select those cases which present individual and environmental problems. The selection is made by an instructor in medicine who is on active duty in the medical ward. He also follows and directs the investigation by the student. The instructor may be aided by the social worker in the selection of the cases, but the student does not consult the social worker before making his study of the case.

The instructor explains to the clinical clerks the significance of the investigations and outlines to them a general plan of procedure. The student then visits the patient's home, interviews the family, surveys the situation in general and drafts a rough report, giving the results of his investigation. The instructor reviews this report with the student and then goes with him to the home and familiarizes himself with the situation. He then discusses with the student the problems presented and, if necessary, makes suggestions for further investigation. On the completion of his study, the student prepares a report which includes a series of recommendations with regard to the adequate handling of all aspects of the case. He presents this report at one of the medical seminars, which are held weekly throughout the year. The seminar is conducted by the professor of medicine and attended by the professor of bacteriology and public health, the professor of psychiatry, the professor of sociology in the university, the social workers from the outpatient department and the hospital, the instructor in charge of the students' investigations, and from four to six students.

After the student has presented his report, the social workers are asked to comment on the case and to give any additional information they may have. We have found that a discussion of the case by the social worker means more to the student at the time of the seminar than it would if held before he has completed his own investigation. Each faculty member then discusses the situation from his own particular point of view and questions the student with regard to various aspects of the case. The attending students participate in the discussion.

The student is expected to follow his patient throughout the year and to file a supplementary report giving

From Syracuse University College of Medicine.

1. Longcope, Warfield D.: Methods in Medicine, Bull. Johns Hopkins Hosp. **50**:4 (Jan.) 1932.

2. Cohen, Ethel, and Derow, H. A.: Teaching Medical Students Objectives for Care of Patients and Social Aspects of Illness, Arch. Int. Med. **58**:351 (Aug.) 1935. Cannon, I. M.: Teaching Medical Students the Social Implications of Illness, New England J. Med. **211**:216 (Aug. 5) 1934.

the final status of the patient at the end of the year. Usually two reports are presented at each seminar meeting and the schedule is so arranged that each student attends four seminars and thus hears the presentation and discussion of seven cases other than his own.

A brief review of a few of the many situations and problems discussed may be of interest.

The first case reported last fall was that of a 14 year old girl who died within a few weeks of Streptococcus viridans endocarditis. This child was a member of an ignorant Polish family and for years had been known to have rheumatic heart disease. She had attended medical clinics in the city but, either because of a lack of knowledge of the situation at home or because of a lack of contact between the medical agencies concerned and the family, the little patient had been wofully neglected. She lived in a cold, damp house and her clothing was entirely inadequate for the rigors of the winters through which she lived. She was frequently chilled and cold at home. No attempts were made to restrict her activities. She went to school thinly clothed and walked through snow and slush in shabby shoes and sat for hours in school with cold, wet feet. Her teeth were neglected and abscesses developed. Obviously diseased tonsils were disregarded. Her diet was frugal. Doubtless the family was informed, after medical examinations in school or in the clinic, that the patient should not run and play as other children, that she needed dental care, perhaps tonsillectomy, surely a better balanced diet and warmer clothing. But, because of a lack of intelligent contact with the family and, too, because of their ignorance, they were not made to understand the seriousness of the situation and the recommendations were not carried out and the neglect continued. With such conditions, the development of the endocarditis could almost have been predicted. This type of case provides a dramatic illustration of the importance of environment in the development of disease.

Another case was that of a woman of 38, admitted to the hospital because of having attempted suicide. Investigation revealed that she was a prostitute springing from a background in which were sprinkled insanity, immorality, alcoholism and criminal traits as far back as the grandparents. As a child, she was beaten and locked in closets. She attempted suicide first at the age of 14. She feared and hated her relatives. Sexual immorality began at 18. After her marriage at 19 she became alcoholic and left her husband after a short time. She had been a professional prostitute for about seven years. Yet this alcoholic, suicidal psychopath could not be called insane, so neither the Department of Mental Hygiene nor any other state or local agency had any provision for her but to allow her to continue her existence unchanged—a miserable, unhappy example of what poor, weak-minded, degenerate families may produce if society refuses to help and guide them.

A somewhat more dramatic case, illustrating that the responsibility of a physician does not end when he has made the diagnosis and instituted the proper treatment, was that of a middle-aged man who was found to have pernicious anemia. A correct diagnosis had been made and proper treatment instituted by a private physician. The patient had returned once or twice for observation and then failed to appear. When last seen by his physician, the anemia had been relieved and the patient had no complaints. About three months later, however, the patient returned, a helpless cripple, markedly anemic and unable to walk because of advanced changes in the spinal cord. He had discontinued the treatment and, of course, his anemia had reappeared and, unfortunately, the spinal cord lesions had developed. It was thus evident that the physician's skill in diagnosis and his knowledge of therapeutics were wasted because he failed to ascertain why it was that his patient did not return. Our students are now being taught that the responsibilities of a physician make it necessary for him to ascertain that his patient is receiving proper medical attention before he allows him to be lost sight of. Some may object to this point of view and say that the physician is not responsible for what may happen to a patient who refuses to cooperate with the advice given; but, if the physician has the best interests of his patient at heart he will reply to this objection by saying that lack of cooperation on the part of a patient merely increases the difficulty of the problem at hand, as such behavior is to be considered symptomatic of some mental disturbance or due to some environmental factors which the physician must search for and correct.

Other cases illustrate the influence of poverty, emotional conflicts and religion on the development and progress of disease. In some instances, psychoses or impending psychoses not recognized by the clinical studies in the hospital were brought to light by the student's investigations of the patient's life at home and in the community. Patients requiring continued medical care at home because of their inability, for various reasons, to attend medical clinics are frequently encountered.

Students are frequently brought into contact with various health, welfare and religious agencies and learn how they are prepared to assist the physician in the care of the patient. They also come to realize that the physician himself becomes a part of the patient's environment and that his attitude toward the patient is always important. He learns that he must study the individual with whom he deals, attempt to get his point of view, find out his understanding of his illness—what he may fear, what he may disregard—and gain his friendship and confidence. Only when a physician has done this and, in addition, has familiarized himself with the peculiarities of the environment and the other members of the family may he intelligently advise the patient and expect his advice to be heeded.

The professor of medicine who has been in charge of the seminars since their inception feels that they have developed into one of the most valuable exercises in the entire curriculum, involving as they do an integration of preventive medicine, psychiatry and the social aspects of medicine in the study of the individual patient. The professor of pediatrics was much impressed by this program and has for several years required similar home visits by students during the period of their clerkship in the pediatrics wards. He feels that these visits are of great teaching value and that they frequently result in an entirely changed point of view as to the proper handling of the case.

As a result of these experiences, our students now graduate with an appreciation of the many problems involved in the practice of medicine and they are also better prepared to assume intelligent leadership in connection with modern social trends as far as they affect adequate medical care.

THE INTRATHECAL USE OF PRONTOSIL SOLUBLE

REPORT OF A CASE OF TYPE III PNEUMOCOCCUS MENINGITIS AND SEPTICEMIA TREATED WITH PRONTOSIL SOLUBLE, WITH COMPLETE AUTOPSY REPORT

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Since the introduction of the original prontosil by Domagk [1] as a therapeutic agent against hemolytic streptococci in mice, its two derivatives prontosil soluble and sulfanilamide have been extensively used against a variety of infections in man.

Experimental evidence by Rosenthal,[2] by Cooper, Gross and Mellon [3] and by Cooper and Gross [4] show that sulfanilamide has distinctly therapeutic properties in rats and mice infected with the type III pneumococcus. Heintzelman, Hadley and Mellon [5] reported a small series of nineteen cases of type III pneumococcus lobar pneumonia, which carries a high mortality in the Pittsburgh area. Of nine patients who received sulfanilamide, seven lived and two died, while of the remaining untreated patients eight died and two recovered. At the Meadowbrook Hospital [6] a crisis was induced by sulfanilamide twenty-four hours after onset of a type III lobar pneumonia, which was contrary to our experience with the disease over a period of two winters since the establishment of the hospital.

Prontosil soluble given parenterally, intramuscularly or subcutaneously is rapidly absorbed. Long and Bliss [7] noted its appearance in the urine within fifteen minutes after subcutaneous injection and discouraged its use intravenously both because it is unnecessary and because of its toxic effects. Colebrook and Kenny [8] also advised its intramuscular or subcutaneous rather than its intravenous use.

The intrathecal use of prontosil soluble has received scant attention. Schwentker and his associates [9] used prontosil soluble intrathecally in one of their cases of streptococcic meningitis with untoward effects, the temperature rising to over 106 F. with irritation of the meninges and a marked cellular reaction. They advise the use of crystalline sulfanilamide 0.8 per cent in physiologic solution of sodium chloride for intrathecal use. If the crystalline compound cannot be obtained, they advise the use of prontosil soluble subcutaneously and sulfanilamide by mouth. The experience of Schwentker with prontosil soluble was not borne out in a case of streptococcic meningitis treated at Meadowbrook Hospital, with recovery,[10] when 60 cc. of prontosil soluble was administered intrathecally in three divided doses of 20 cc. each over a period of twenty-four hours. Within twenty-four hours the count dropped from 5,000 cells with 75 per cent polymorphonuclear leukocytes to 1,700 cells with 75 per cent polymorphonuclears, and twenty-four hours after that the count was 280 cells with only 32 per cent polymorphonuclears. Sulfanilamide was also given by mouth and prontosil soluble intramuscularly. In the case of type III pneumococcus meningitis and septicemia here reported, prontosil soluble was given intramuscularly and intrathecally.

REPORT OF CASE

A white woman, aged 53, in a good state of nutrition, was disoriented, irrational and uncooperative on admission. The history was obtained from her husband. For about ten days previous to admission the patient had had a moderate cold in the head. The day before admission the patient boarded a train for New York City 20 miles away and, while riding, suddenly became sick, complained of marked headache and malaise and vomited. She returned home unassisted and went to bed, complaining of a severe diffuse headache. She was oriented and cooperative all that night, but her husband noted "convulsive twitchings" of the extremities and face. She was seen by her physician, who prescribed palliative treatment and returned to see her the next morning. At this time he noted definite meningeal signs and disorientation and advised hospitalization.

The past history was essentially negative aside from an occasional discharging right ear.

Physical examination revealed a temperature of 104 F. rectally; the pulse was 120 and the respiration rate 35. The pupils were round and equal. It was impossible to elicit extraocular movements. The ear drums were normal except for a scarred right drum with a small central perforation. No discharge was noted. The pharynx was normal. The neck was markedly rigid. The chest was clear and the heart normal. There were positive Kernig and Brudzinski signs but no Babinski reflex was obtained.

The urine was of good concentration, 1 plus albumin, and from 8 to 10 red blood cells and from 10 to 12 white blood cells were noted (catheterized specimen). The hemoglobin was 72 per cent, leukocytes 18,500, polymorphonuclears 85 per cent and lymphocytes 15 per cent. The Wassermann and Kahn reactions were negative.

A spinal tap revealed thick greenish pus, which flowed fairly easily and separated into two layers almost immediately in the test tube. Because of the character of the fluid, specific treatment was withheld until the fluid was examined. A smear revealed many gram-positive diplococci, which proved to be type III pneumococci. The cell count was over 18,000, with 99 per cent polymorphonuclear leukocytes. The spinal canal was again tapped and drained and 20 cc. of prontosil solution 2.5 per cent was instilled, and 20 cc. was given intramuscularly. Six hours later a spinal tap was done for drainage. Dr. Jasper of the ear, nose and throat service was called in consultation. His opinion was that the meningitis was probably secondary to infection of the ethmoid and sphenoid sinuses in view of the history of infection of the upper respiratory tract preceding the present illness. Roentgenograms of the skull and sinuses revealed marked ethmoiditis, chronic maxillary and frontal sinusitis and an enlarged sella turcica, with erosion of the floor and posterior clinoid process. Because of the patient's desperate condition, drainage of the ethmoid and sphenoid sinuses was advised. A submucous resection, bilateral middle turbinectomy and opening of the sinuses were performed. The patient's condition remained unchanged.

Later that evening a cisternal tap was done and 65 cc. of fluid the color of prontosil was removed. Twenty cc. of

From the Medical Service of Dr. Ernest Dickey.

The prontosil soluble solution used in this case is the solution marketed as "Prontosil Solution 2.5 per cent" by the Winthrop Chemical Company. The term prontosil has probably been used in the literature for a number of related substances. To avoid confusion the term prontosil used in this paper refers to prontosil solution 2.5 per cent, which, according to the label is disodium 4-sulfamido-phenyl-2'-azo-7'-acetylamino-1'-hydroxynaphthalene 3',6'-disulfonate.

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8. Colebrook, Leonard, and Kenny, Méave: Treatment of Human Puerperal Infections, and of Experimental Infections in Mice, with Prontosil, Lancet **1**: 1279 (June 6) 1936.

9. Schwentker, F. F.; Classen, F. P.; Morgan, W. A.; Lindsay, J. W., and Long, P. H.: Bull. Johns Hopkins Hosp. **60**: 297 (April) 1937.

10. Millett, Joseph: Hemolytic Streptococcus Meningitis: Report of a Case Treated with Sulfanilamide, and Prontosil Soluble Intramuscularly and Intrathecally, with Recovery, New England J. Med. **217**: 936 (Sept. 30) 1937.

prontosil solution was injected intrathecally in the lumbar region and 20 cc. was given intramuscularly. At 2:30 a. m. the spinal tap was repeated and 20 cc. of the prontosil was given intrathecally and intramuscularly again. The patient's condition was extremely poor. At 10 o'clock the temperature rose to 106.4 F. and while a spinal tap was being performed the patient died, twenty hours after admission.

Culture of the blood taken on admission was reported to have too many colonies of type III pneumococci to count. Culture of the spinal fluid (initial tap) contained numerous type III pneumococci. The next day the culture of the spinal fluid, which was made from the spinal fluid taken at the last tap, was reported to have only a scant growth of pneumococci.

Permission for complete necropsy was obtained.

The entire body was observed to have a pinkish hue. When the skull cap was removed the dura was found to be homogeneously stained red. When the dura was removed the entire brain and leptomeninges were found to be stained in the same manner. The brain was removed in the usual manner and the entire base was found to be, as far as the naked eye could tell, entirely free from pus. The most remarkable finding was a large pituitary tumor, which was quite soft and which oozed pus on attempted removal. The petrous portion of the temporals was normal, and the ethmoidal and sphenoidal sinuses were found to be filled with a small amount of postoperative blood. Microscopic examination of the organs revealed nothing of any moment that could not be attributed to the infection. There was no evidence of what might be considered chemical irritation of the brain cortex, and the leptomeninges showed a moderate degree of inflammation.

COMMENT

This patient died of an overwhelming infection of the type III pneumococcus. There is some experimental and clinical evidence which, although meager, points to the fact that sulfanilamide has some therapeutic action against the type III pneumococcus. The initial spinal tap in this case contained an abundance of type III pneumococci, the pus was fairly thick and greenish and the cell count was high, yet a culture taken after the administration of 60 cc. of prontosil soluble intrathecally revealed only a scant growth of the organism. Unfortunately no cell count was made on this specimen.

The necropsy revealed that prontosil soluble administered intrathecally diffuses generally throughout the central nervous system with apparent ease and a minimum of irritation. It does not affect subsequent drainage and mixes intimately with the spinal fluid.

Because of the condition of this patient, sulfanilamide in tablet form was not given. The question was brought up as to whether or not prontosil soluble injected intramuscularly had any effect on sterilizing the spinal fluid. In order to find out whether there was any diffusion of the dye into the spinal canal, the following experiment was performed on an adult male volunteer:

At 2:30 p. m. 20 cc. of prontosil soluble was injected intramuscularly into the buttock. In fifteen minutes the urine excreted was colored red. One-half hour after the injection a needle was inserted into the spinal canal and varying amounts of fluid were withdrawn every fifteen minutes. At 3:30 20 cc. more of prontosil soluble was injected intramuscularly. By 4:30 about 60 cc. of colorless, unstained spinal fluid had been removed. The needle was withdrawn and reinserted at 7:30, but the fluid was still colorless, although the patient had assumed a faint but definitely pink color throughout.

No chemical or bacteriologic studies were made on the specimen of spinal fluid to observe whether or not the fluid contained sulfonamide radicals or was bactericidal. It is interesting to speculate why the glomerulus, but not the choroid plexus, will excrete the dye so quickly.

SUMMARY

1. Prontosil soluble has been used intrathecally with marked bactericidal effect on type III pneumococcus meningitis in a patient who died of type III pneumococcus bacteremia.

2. Postmortem examination of the brain both grossly and microscopically revealed no apparent chemical injury due to the drug.

3. Because of its proved diffusibility throughout the central nervous system, prontosil soluble is recommended for intrathecal medication, augmented by the oral use of sulfanilamide, in those meningeal infections which have been shown to respond to these compounds.

Clinical Notes, Suggestions and New Instruments

STREPTOCOCCIC BACTEREMIA AND APPARENT THROMBOSIS OF THE CAVERNOUS SINUSES WITH RECOVERY

WARD J. MacNEAL, M.D., AND MICHAEL E. CAVALLO, M.D.
NEW YORK

In recent medical literature there have been increasingly frequent reports of the successful care of patients afflicted with infections formerly regarded as almost certainly fatal. So far as we are aware, however, recovery of a patient with bacteremia accompanied by evidence of obstruction in the cavernous sinuses still remains a medical rarity. Cavenagh[1] was able to find only seven reported recoveries from acute thrombosis of the cavernous sinus. Three patients recovered after surgical drainage of the sinus and of these only one had a positive blood culture (Staphylococcus aureus). Four patients recovered after anti-infective therapy. Three of these cases were due to Staphylococcus aureus, and this organism was recovered from the blood stream in two of the patients. One of these patients with bacteremia received only transfusions. The other two patients were treated with bacteriophage. The fourth patient in this group given anti-infective therapy appears not to have had a positive blood culture. He was given polyvalent antistreptococcus serum intravenously. Cavenagh found also a record of one instance (Seale's case) of spontaneous recovery in an African native without bacteriologic study or specific treatment.

Grove[2] reports an instance of thrombosis of the cavernous sinus of septic origin, after operation on the mastoid. The patient recovered. The author expressed the opinion that the thrombosis in this case occurred in a retrograde manner from the lateral sinus or from one of the petrosal sinuses and that the thrombus in the cavernous sinus itself was sterile. He was unable to conceive of recovery taking place when the thrombus within the cavernous sinus itself was infected. Apparently there was not a bacteremia in this case. Two other recoveries reported by this author were evidently examples of aseptic thrombosis of the cavernous sinus following severe trauma. Grove concludes that in the septic types in which the thrombosis or thrombophlebitis reaches the cavernous sinus by way of its afferent vessels the mortality is practically 100 per cent.

The case about to be discussed presented roentgenologic evidence of pansinusitis, a positive blood culture, severe cyanosis of the face, enormous engorgement of the veins of the forehead and eyelids, marked chemosis of the conjunctivae including the right cornea, and proptosis on both sides but especially marked on the right. A clinical diagnosis of septic

From the Department of Pathology and Bacteriology and the Department of Surgery, New York Post-Graduate Medical School and Hospital, Columbia University.

1. Cavenagh, J. R.: Cavernous Sinus Thrombosis: A Study of the Cases of Recovery, Brit. M. J. 1:1193-1199 (June 13) 1936.
2. Grove, W. E.: Septic and Aseptic Types of Thrombosis of the Cavernous Sinus: Report of Cases, Arch. Otolaryng. 24:29-50 (July) 1936.

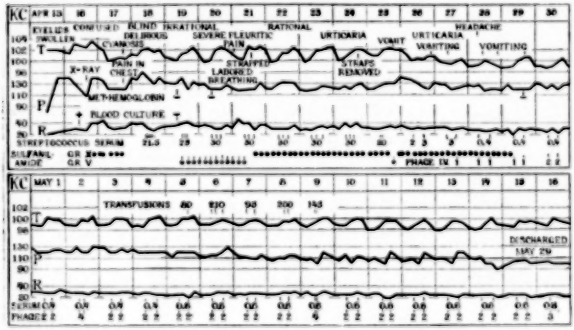
thrombosis of the cavernous sinuses was made. The principal evidence against this diagnosis is found in the outcome of the disease.

REPORT OF CASE

K. C., a white woman, aged 40, a housewife, admitted to the hospital April 15, 1937, complained of fever, vaginal bleeding and swelling of the face of three days' duration. Marked swelling of the left eyelid began April 13 and similar swelling of the right eyelid April 14. A severe laryngitis had been present from April 8 to April 15. On admission the forehead, the malar regions, the bridge of the nose and the left side of the face and neck were red, swollen, tender and hot. The left eye was swollen shut. The right eye was two thirds closed and the eyeball protruded. Vaginal bleeding was moderate. Examination of the lungs was negative. The patient could speak only in a whisper and there was some mental confusion, apparently febrile. The temperature on admission was 102 F., pulse 78, respiration rate 24. X-ray examination, April 16, by Dr. William H. Meyer revealed veiling of both antrums and the ethmoid and sphenoidal sinuses, and he made a diagnosis of pansinusitis. Blood culture taken April 16 yielded positive growth of hemolytic streptococci both in broth flasks and in the agar plates. April 16 the right eye closed entirely. Mental confusion increased, with periods of delirium, only partly translucent. The eyeball was displaced forward. During a lucid interval the patient evidently could distinguish light and shadow with this eye but she could not count fingers. The left eye was in general similar but here the cornea remained clear with a puffy scleral conjunctiva elevated all about its margin. The patient could count fingers with this eye when it was held open for her. At this time the diagnosis was septic thrombosis of the cavernous sinus, bilateral, more severe on the right side; nasal pansinusitis, streptococcic bacteremia; early pneumonia of the right lower lobe; cyanosis in part due to alteration of blood by sulfanilamide. An unfavorable prognosis was given to the family.

Antistreptococcus serum,[3] 0.05 cc., was injected into the skin of the left forearm at 11:06 a. m. and 1 cc. diluted with an equal volume of saline solution was injected subcutaneously. A second subcutaneous dose of 1.5 cc. of serum was given at 11:25. The next dose, 1 cc. of serum plus 1 cc. of saline solution, was given into the triceps muscle at 11:45, and at 12:15 noon another intramuscular injection containing 1.5 cc. of serum was given. At 12:35 the first intravenous dose was given, 0.05 cc. of serum diluted with 0.95 cc. of saline solution, and this was followed by increasing amounts of serum intravenously, 0.15 cc. at 1:17 p. m., 0.3 cc. at 1:35, 0.5 cc. at 2:05, 1.5 cc. at 2:43, 2.5 cc. at 3:10, 5 cc. at 3:47 and 6.5 cc. at 4:13, making a total of 21.5 cc. of streptococcus serum for the day. In each instance the serum was suitably diluted with salt solution so as to be injected through a fine needle, gage 27, for the intravenous doses. At 3:50 p. m. the patient was able to count fingers with the right eye when it was held open by the examiner.

Monday, April 19, the patient seemed much brighter and was inclined to chat cheerfully with the nurse. At 8:30 a. m. she could see clearly with either eye. At 9:20 a blood culture was taken, which remained sterile. A bedside spectroscopic examination of the blood at this time was negative for methemoglobin and on this account, even though the patient was still very cyanotic, we felt that there was still enough functioning hemoglobin to provide a margin of safety permitting the administration of further sulfanilamide in 5 grain doses every four hours. April 19 a total amount of 25 cc. of streptococcus serum was given in three intravenous injections and on subsequent days 30 cc. a day in three intravenous injections until April 25, when the amount was reduced as shown in the accompanying chart. All serum was given intravenously after the first day, April 18.



Abridged clinical record of K. C., a white woman, aged 40. Temperature, pulse and respiration rate are shown by the graphs. April 16, x-ray examination showed pansinusitis. Blood culture taken on this day yielded positive growth of hemolytic streptococcus. Sulfanilamide 10 grains every four hours by mouth was started that evening. It was discontinued April 17, given again in 5 grain doses beginning April 19 and increased to 10 grain doses April 21 and finally discontinued April 29. Streptococcus serum was given in multiple doses April 18 and thereafter every day until discharge from the hospital. Specific streptococcus bacteriophage in the asparagin medium was given intravenously April 27 and continued until discharge. Fractional transfusions were given May 5 to 9. Very marked cyanosis persisted until April 30, when it rapidly disappeared. Spectroscopic examination of the blood for methemoglobin, however, was negative April 19, 20 and 29.

Sulfanilamide, 10 grains (0.65 Gm.) every four hours by mouth, was started at 9:30 p. m. Friday April 16. Dyspnea and cyanosis increased progressively. April 17 the patient refused to take any more sulfanilamide because of nausea. Paroxysmal pain in the right thorax and coughing spells associated with severe cyanosis, as well as a moderate persistent cyanosis, were now present, and there was distressing pain and marked tenderness of the entire right upper extremity. During the night of April 17 she was delirious and quite noisy until the condition was controlled by hypodermic medication.

Sunday morning, April 18, her condition appeared desperate. There was very marked cyanosis and edema of the forehead, eyelids and upper part of the face and a less marked general cyanosis. The patient could not open her eyes. On the edematous upper lids the distended veins stood out as tortuous ridges from 2 to 3 mm. in diameter. On the swollen forehead distended tortuous veins radiated upward from the inner angles of the eyes, and along the borders of these engorged veins were numerous minute capillary hemorrhages in the skin. The patient was a natural blonde with light auburn hair, but her facial skin was a blue gray. When the upper right eyelid was raised by the examiner, the conjunctiva was everywhere thickened by translucent edema and the cornea was irregularly thickened and

Pain in the right thorax became very severe April 21 and the respiratory rate reached 46 per minute. A distinct pleuritic friction sound could be heard below the breast in the anterior axillary line. This side was therefore taped and the adhesive strips were left on until April 24, at which time the pleuritic pain had disappeared, apparently without any marked effusion. The dose of sulfanilamide by mouth was increased to 10 grains every four hours April 21. The patient rebelled against this, ascribing to it her nausea and vomiting, and April 25 she took only half the dose at 6:15 p. m. The sulfanilamide was discontinued entirely April 29. The patient was still very cyanotic, although it was impossible to detect signs of pleural effusion or of pneumonic consolidation. The respiration rate continued to be about 30 per minute. A spectroscopic test of the blood was negative. After this drug was stopped the color of the patient gradually changed so that on May 3 she presented the skin and pink mucous membranes of a pronounced blonde. The nausea also disappeared. Untoward effect of the serum was evidenced by urticaria April 23, becoming more severe April 26. The dose of serum was reduced as shown in the chart.

3. The polyvalent concentrated antistreptococcus serum, biologic product 2005 of Parke, Davis & Co., was employed throughout for this patient.

V 1
193

Meanwhile the efforts directed to the preparation of a specific bacteriophage had succeeded in the production of a lytic filtrate capable of causing satisfactory lysis of the patient's streptococcus in the test tube. This preparation was given by intravenous injection, beginning April 27 and continued as shown in the chart.

Continued low fever and a dull headache in the right frontal region made us fearful of a persistent intracranial complication. However, the headache disappeared. The dilated veins on the forehead and on the eyelids gradually returned to normal. Small hemorrhagic spots persisted along the courses of the veins on the forehead for a time, but these also had disappeared by May 15. The administration of blood from May 5 to 9 inclusive seemed to help the gain in strength. The patient was up and about after May 15 and was discharged from the hospital May 29. Because of the fact that the rectal temperature still continued to reach from 99.4 to 99.8 F. each day, she was advised to continue temperature observations at home. Reports indicate that a day of unusual effort is followed by a rise in temperature to 99.8 or 100 F., although she feels quite well in other respects.

In reporting this case we are well aware that we are not offering critical evidence to aid in deciding an argument about the therapeutic efficiency of the sulfonamides, of streptococcus serum or of streptococcus bacteriophage and we would disclaim any immediate interest in exploiting any of these agents. Rather, it is our intention and our hope that this report may bring some encouragement and perhaps assistance to the conscientious physician confronted with the problem of caring for a patient desperately ill with streptococcic bacteremia and evidence of obstruction in the cavernous sinuses.

303 East Twentieth Street.

Council on Pharmacy and Chemistry

NEW AND NONOFFICIAL REMEDIES

THE FOLLOWING ADDITIONAL ARTICLES HAVE BEEN ACCEPTED AS CONFORMING TO THE RULES OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR ADMISSION TO NEW AND NONOFFICIAL REMEDIES. A COPY OF THE RULES ON WHICH THE COUNCIL BASES ITS ACTION WILL BE SENT ON APPLICATION.

PAUL NICHOLAS LEECH, Secretary.

GITALIN (AMORPHOUS).—A glucosidal constituent of Digitalis purpurea Linné prepared according to the method of Kraft. It is standardized by the intravenous cat method of Hatcher and Brody (*Am. J. Pharm.* **82**:360, 1910) and its potency adjusted to an M. L. D. of 0.8 mg. per kilogram of body weight.

Actions and Uses.—The same as those of digitalis.

Dosage.—Full digitalis effects are usually obtained after a total dosage of 1/16 to 1/10 grain, or from five to eight tablets. These effects may be obtained by the administration of two to three tablets per day for three or four days. The same precautions should be taken with gitalin as with any digitalis preparation or digitaleid drug. Should toxic symptoms, such as nausea or vomiting, occur during the course of digitalization, administration of the drug should be discontinued. After the desired clinical effects have been induced, the patient may be placed on a maintenance dose of 1/240 to 1/60 grain (one-third to one tablet) daily. The amount varies according to the individual requirements of the patient. Gitalin (amorphous) is less cumulative than digitoxin but more so than ouabain and most tinctures of digitalis. While the biologic cat unit has been determined to be 0.8 mg. (1/60 grain) per kilogram of body weight, gitalin (amorphous) apparently gives good clinical results in amounts ranging from one-third to one-half the dose calculated on this basis.

Manufactured by Rare Chemicals, Inc., Nepera Park, N. Y. No U. S. patent or trademark.

Tablets Gitalin (Amorphous), 0.8 mg. (1/60 grain): Each tablet is scored into segments of 1/240 grain for convenience in regulation of the daily maintenance dose.

Dried and ground leaves of Digitalis purpurea Linné are extracted with cold, distilled water. This aqueous infusion is then treated with basic lead acetate and the lead subsequently removed by precipitation with sodium sulfate. The resulting filtrate is agitated with chloroform and allowed to separate. From the chloroform extract the gitalin (amorphous) substance is precipitated by means of petroleum ether. The precipitate is subjected to further purification and finally dried in vacuo. The entire process of extraction and purification is conducted without the aid of heat.

Gitalin (amorphous) is a white or slightly buff colored amorphous powder which is readily soluble in chloroform, ether, acetone and alcohol and is slowly soluble in 600 parts of cold water. It is insoluble in petroleum ether and carbon disulfide. Its aqueous solution is neutral to litmus and possesses an intensely bitter taste. It has no sharp melting point but undergoes some decomposition when heated to 110 C. and becomes fluid as the temperature is raised to 150 C. When its aqueous solution is boiled, gitalin (amorphous) is converted into anhydrogitalin, with a subsequent loss of about 30 per cent in potency.

Dissolve 10 mg. of gitalin (amorphous) in 3 cc. of glacial acetic acid in a narrow test tube, and add to this one drop of 5 per cent ferric chloride solution. Underlay this solution with concentrated sulfuric acid: a brownish red zone appears at the point of contact. The upper acetic acid layer assumes a bluish green color, gradually changing to indigo blue. Repeat the test without the addition of ferric chloride: a brown zone appears at the point of contact, and the upper acetic acid layer remains green. Concentrated sulfuric acid containing 10 mg. of gitalin (amorphous) and a trace of ferric chloride produces a brown color, gradually changing to red and finally to violet. When an aqueous solution of gitalin (amorphous) is heated for one hour at 100 C., its potency is reduced 30 per cent. This "titer-drop" is a characteristic feature of gitalin (amorphous) and is due to the conversion of gitalin into anhydrogitalin. It does not occur with digitalein or digitoxin.

SILVER PICRATE-WYETH'S (See THE JOURNAL, July 3, 1937, p. 29; Supplement to New and Nonofficial Remedies, 1937, p. 16).

The following dosage form has been accepted:

Silver Picrate Vaginal Suppositories, 1 grain (infant size): Silver picrate-N. N. R. in a hydroglyceride gelatin base.

STAPHYLOCOCCUS TOXOID (See New and Nonofficial Remedies, 1937, p. 405).

E. R. Squibb & Sons, New York.

Staphylococcus Toxoid-Squibb.—Prepared by growing cultures of Staphylococcus albus and Staphylococcus aureus in semisynthetic mediums for forty-eight hours at 37 C. in a special container containing 80 per cent carbon dioxide and 20 per cent oxygen. The toxin is detoxified by treating with 0.3 per cent "solution of formaldehyde, U. S. P." and held at 37 C. until 0.2 cc. causes no necrosis when injected intradermally into rabbits. Merthiolate 1:10,000 is added. The finished material is passed through a Berkefeld filter, and tested according to the regulations of the National Institute of Health are made to determine sterility. In addition, potency and safety tests are made. George F. Leonard and August Holm (*J. Immunol.* **29**: 299 [Sept.] 1935) give a full description of the process of preparation and testing. The product is tested for sterility by planting in appropriate mediums according to the regulations of the U. S. Public Health Service for testing the sterility of biologic products. Safety tests are made by injecting 5 cc. subcutaneously into guinea pigs and 0.5 cc. intraperitoneally into white mice. The antigenicity of staphylococcus toxoid is determined by injecting 1 cc. of toxoid per kilogram of rabbit intravenously into three rabbits, and the resulting serum is tested at the end of one and two weeks for its content of staphylococcus antitoxin. No staphylococcus toxoid is used which in doses of 0.2 cc. or less of the undiluted material will cause necrosis when injected undiluted into rabbits. The toxin is titrated to determine its dermonecrotic activity and also its actual killing power in rabbits.

Staphylococcus toxoid-Squibb is marketed in packages of one 5 cc. rubber-capped vial, each cubic centimeter containing the toxoid derived from at least 1,000 necrotizing doses of toxin.

SCARLET RED SULFONATE (See New and Nonofficial Remedies, 1937, p. 196).

Scarlet Red Sulfonate-"National."—A brand of scarlet red sulfonate-N. N. R.

Manufactured by The National Aniline & Chemical Co., Inc., New York. No U. S. patent or trademark.

LIVER EXTRACT-ARMOUR.—A yellowish granular powder containing a water-soluble fraction extracted from fresh mammalian liver. The daily oral administration of 14 Gm. (three vials) has been found to produce the standard reticulocyte response as defined by the Council when assayed in cases of pernicious anemia.

Actions and Uses.—Liver extract-Armour is proposed for use in the treatment of pernicious anemia. See general article Liver and Stomach Preparations, New and Nonofficial Remedies, 1937, p. 309.

Dosage.—Liver extract-Armour is administered orally. The average daily dose during relapse is three teaspoonfuls (or three vials). In severe and complicated cases, larger doses may be required.

Manufactured by Armour and Company, Chicago. No U. S. patent or trademark.

Liver extract-Armour is made by the process developed by Dr. K. K. Koessler and his co-workers, Drs. M. T. Hanke and Siegfried Maurer, in the laboratory of the Otho S. A. Sprague Memorial Institute at the University of Chicago. Fresh livers still retaining the animal heat are finely minced and macerated with three volumes of water. The coagulable proteins are removed by heat and the liquid is condensed at low temperature and negative pressure. The resulting extract is treated with hot 70 per cent alcohol under a reflux condenser and the soluble fraction separated by filtration. The clear filtrate is evaporated to dryness in vacuo and the residual extract dried and powdered.

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SATURDAY, DECEMBER 25, 1937

WORLD HEALTH AND THE LEAGUE OF NATIONS

The menace to health and the danger from epidemics in war-torn China have already given much concern to health authorities throughout the world. Thus the Assembly of the League of Nations has voted two million Swiss francs to assist China in dealing with its health problem. October 14, according to a press release, the Subcommittee for Technical Cooperation with China was given a description of the present epidemic situation in that country. With regard to cholera, the report states, measures now in force, plus the onset of the cold season, justify the hope that a large-scale epidemic will not break out this year. There is, however, grave reason to fear a fresh pandemic during the spring and summer of 1938. The report continues:

> It would not seem that the present disturbances are likely directly to influence the incidence of plague. Nevertheless, indirect repercussions, which might become serious internationally as well as nationally, are to be expected if the disturbances cause a breakdown in quarantine services and thus lead to the transmission of plague infection by sea.
>
> If military operations should extend—particularly during the winter—to the Shansi-Shensi region, where plague is endemic, an outbreak of pneumonic plague might be feared as a dangerous contingency.
>
> Any movement of refugees, carrying lice and the plague virus, toward the central, and more particularly the southern, parts of China, where the population is now immunized against typhus, is likely to lead to epidemics, at any rate on a local scale. . . .
>
> Any considerable shift of population may cause outbreaks of smallpox, by spreading infection among the rural populations, who include a high percentage of receptive individuals.
>
> The difficulties of supplying clean water, both to troops on the march and to refugees outside camps, are also clearly capable of causing a considerable increase in infections of the digestive tract, of the typhoid and dysentery types—the latter more especially during the hot season.
>
> Meningitis is obviously more to be feared among the troops, by reason of overcrowding and fatigue among soldiers who are generally highly vulnerable to infection. Preventive measures are particularly difficult to take in times of war.
>
> The situation as regards diphtheria and scarlet fever is very similar, and the same factors are likely to facilitate the spread of these diseases.
>
> The diseases enumerated above do not exhaust the list of possible epidemics which may result from the military operations in China or from their repercussions. Mention may also be made of the probable increase in the incidence of venereal disease and the possible appearance of malaria epidemics, if troops or groups of refugees not previously immunized by infection remain in malarial districts during the hot season.
>
> It is hardly necessary to refer to the increase in infant mortality and tuberculosis, which are inevitable consequences of the distress caused by war, even when actual famine does not occur.

The United States Public Health Service has also taken official notice of some of the problems raised by the Far Eastern carnage. In *Public Health Reports* for September 24 is a brief discussion of cholera in China.[1] The chief quarantine officer detailed to this duty by the United States Public Health Service in the Philippine Islands has directed all quarantine officers to carry out careful inspection of ships, passengers and crew from infected or suspected ports, including examination for carriers. It is believed, however, that the seaports on the western coast of the United States are not likely to become infected, since the incubation period of cholera is only five days, and outbreaks on shipboard will occur before these ships reach any United States seaport. Air travelers from the Far East will also have completed the incubation period by the time they reach San Francisco, but those stopping off en route will be held at stopover points to complete the incubation period.

The importance of investigations and technical advice from the Health Organisation of the League of Nations to countries in sanitary difficulties has already been demonstrated several times. Thus the Report on the Health Mission in Spain,[2] of Dec. 28, 1936, to Jan. 15, 1937, while not disclosing as serious a sanitary situation as may be expected in China, was nevertheless a valuable review of the sanitary, housing and feeding problems associated with the civil war in Spain. MacKenzie [3] has recently pointed out that there are four main activities of the League Health Organisation. These may be classified as the commissions and committees of experts, collaboration with various governments, the collection of information from various countries with regard to disease incidence, and medical educational work, including collective study tours, individual study tours and international courses in public health subjects. The functions of some of the commissions, notably those on malaria, leprosy and cancer, are quite generally known. The commissions on permanent standards, maternal welfare, medical education, treatment of rabies and others are also making important contributions. The Epidemiological Intelligence Service first began work in 1921. The information received is included in a bulletin which is telegraphed weekly, in a special code, to the Geneva center and to certain eastern health authorities. Not the least important of the functions

1. Cholera in China, Pub. Health Rep. **52**:1341 (Sept. 24) 1937.
2. Bulletin of the Health Organisation, League of Nations, Geneva **6**:56 (Feb.) 1937.
3. MacKenzie, Melville D.: Some Aspects of the Health Organisation of the League of Nations, J. Malay Branch Brit. M. A. **1**:6 (June) 1937.

of the Health Organisation is the promotion of conferences on special subjects. As MacKenzie says, the rapidity of modern transport and the greater amount of traveling by all classes have increased the need for international collaboration, if the fullest possible advantage is to be taken of the available knowledge and experience in the control of ill health.

The immunologist Thorvald Madsen [4] in the Harvey Lecture, February 18, spoke convincingly of the value of the scientific work of the Health Organisation. One of the difficulties in interpreting the public health statistics which the organization has attempted to collect and collate has been the establishment of uniform figures. Much must be done to make the data comparable on such questions as stillbirth, population estimates, and the notification of joint causes of death. In order to achieve the necessary uniformity and comparability, it was necessary to create several commissions of statistical experts who have studied the questions and made definite proposals to the health administration. The ultimate effect of this particular study should tremendously enhance the value of comparative medical statistics. As an instance of the practical value of some of the investigations, Madsen cites the investigation on the epidemiology of tuberculosis which was made in the three Scandinavian countries in 1925 and which showed the different manner in which tuberculosis has developed in these countries. In Denmark, for instance, tuberculosis has been spreading for a hundred years. This is probably one of the reasons it is now decreasing rapidly. Practically the whole population in all parts of Denmark have been infected and hence many persons are immune, whereas in Norway and Sweden the spread to remote parts has taken place more recently, and the tuberculosis rate has shown a tendency to rise until the last few decades.

GERIATRICS—THE CARE OF THE AGED

Geriatrics is a term, inclining toward general adoption, for that division of medicine which deals with the treatment of the diseases and special problems of old age and senescence.[1] Between 1900 and 1930, Horn [2] says, there was an increase of 52 per cent in the actual numbers of those 60 years of age and over, compared with an increase of only 38 per cent in the total population. According to present trends, therefore, by 1990 the senescent population will have become equal to, if not in excess of, the preadolescent population. Furthermore, disease in old age differs in many ways from disease in younger groups; the incidence is different and the symptoms often diverge widely from those seen in middle and early life.

The diseases of old age which call for medical attention may be divided roughly into two types: those which also occur in younger years and those which are definitely characteristic of the degenerative processes inherent in continued living. Pepper [3] has pointed out some important features: The stomach is a frequent seat of cancer in the aged, but the process may be amazingly latent in comparison with that in younger years. Ulcer becomes increasingly rare with advancing years. Acute appendicitis is now believed to be more common than was formerly thought but, because of its usual mild onset, is much more dangerous and difficult to diagnose than in youth. Tuberculosis is not as rare as might be anticipated. Both the lobar and bronchial forms of pneumonia are common. Here too the symptoms may be so mild that diagnosis is often difficult. Most acute infections are less common and when present are likely to be symptomatically milder, although more fatal and productive of serious complications.

Perhaps the degenerative changes rather than the diseases proper identify old age most sharply. As we grow older, according to Horn, there is a decrease of water and an increase in calcium content in the tissues, with consequent loss of resilience. The vasomotor upsets of the menopause frequently carry over into the years of senescence. In such instances irritability, impatience, inability to relax and insomnia are frequent. The progressive hypertrophy of the prostate in advancing years is a common source of progressive decline. The obstruction that it produces frequently causes back pressure on the kidneys, and the resultant nitrogen retention may gradually affect the whole organism. Loss of weight, diminishing appetite, lack of gastric secretion and diverticulosis of the esophagus or bowel may perhaps all be considered incident to senescent degeneration.

Sclerosis of the blood vessels is well nigh universal in this age group but makes its appearance at different ages and progresses with varying rates of speed. The cerebral circulation and the nervous system are often involved early. An early loss of memory is not, however, necessarily on a circulatory basis, since sometimes cerebral deterioration is not found in even far advanced arteriosclerosis of the brain.

The wise physician must be on the alert to recognize acute preventable diseases in a far less obvious form than in younger persons. He must recognize also that there is often less which can be done for these diseases. The average elderly patient, according to Horn, is not tolerant of extended diagnostic studies and is often merely forced into it by the urgings of overanxious relatives. Worcester [4] emphasizes this point in an exceptionally able and unusual discussion of the subject: "The relief and comfort of our aged patients

4. Madsen, Thorvald: The Scientific Work of the Health Organisation of the League of Nations, Bull. New York Acad. Med. **13**: 439 (Aug.) 1937.

1. Giese, C. L.: Geriatrics, Colorado Med. **29**: 159 (April) 1932.
2. Horn, Will S.: Geriatrics as a Modern Specialty, Texas State J. Med. **33**: 448 (Oct.) 1937.
3. Pepper, O. H. Perry: Notes in the Field of Geriatrics, M. Clin. North America **20**: 127 (July) 1936.
4. Worcester, Alfred: The Care of the Aged, the Dying and the Dead, Baltimore, Charles C. Thomas, 1935.

should be our aim, rather than the prolongation of their lives. But this is hardly a true distinction, for the relief and comfort given to an aged patient often effect the prolongation of life if only by restoring the willingness to live." The restriction of food and of fluids seems to be desirable in the prolongation of life and healthfulness of old age. It is, however, too common for elderly persons to reduce their diet by limiting food essentials either because of some idea of their own or because of advice from a well meaning but ill advised physician. Few apparently drink any milk at all, and deficiency of vitamins may be more common in old age than is often recognized. Glandular deficiencies are probably an integral part of senescence, but thyroid and insulin when indicated should be administered cautiously. Sedative drugs and morphine act quite differently in older persons, and overdosage and addiction are dangerously easy. Rest is important, but the frequent neglect of exercise should be remedied. The problem of laxatives is often difficult but must be solved for each patient individually. Finally, as Worcester has emphasized, the psychologic approach to older patients is of the greatest importance. They are frequently dependent on the physician not so often for drugs or directions as for the human support which perhaps means more in advanced years than at any other time. It is desirable to shun the impossible task of rejuvenation, to preserve the habitual pleasures and to adjust professional visits to the psychologic necessity of the patient rather than to the purely physical aid that may be rendered.

Current Comment

RETENTION AND ELIMINATION OF SELENIUM

As already pointed out in THE JOURNAL,[1] the poisonous character of the forage crops and grains grown in certain of the North Central and Western states in this county is due to the presence of compounds of selenium in these feeds. Many people living in these regions excreted appreciable amounts of selenium in the urine and showed symptoms of chronic selenium poisoning. Of considerable interest, therefore, are the recent studies from the National Institute of Health[2] on the distribution of selenium in tissues in chronic poisoning and its elimination from the body. Sodium selenite was administered subcutaneously or by mouth to cats for from fifteen to 188 days and in dosages representing from 0.02 to 0.25 mg. of selenium per kilogram of body weight. A large part of the substance (from 50 to 80 per cent) was excreted in the urine, a greater proportion when the selenite was given subcutaneously than when given by mouth. The concentration in the urine was closely parallel to the level of intake. Much less of the selenium administered was present in the feces, particularly when the substance was given subcutaneously. After chronic poisoning the liver, spleen, kidney and pancreas contained the greatest concentrations of selenium. Although the blood contained relatively small amounts, more was found in the red cells than in the plasma. In another study[3] of the toxicity of selenium in rats, cats and rabbits it was observed that, whereas its continued administration was cumulative in its effects, much of it was susceptible to detoxication. Furthermore, there was no evidence of an acquired tolerance to this element. After some 170 days of administration of sodium selenite, the urinary excretion in four animals was from 190 to 252 micrograms per hundred cubic centimeters. The selenite was then discontinued; within two weeks there was a sharp drop in the selenium excretion and in a month only from 3 to 19 micrograms was present in the urine. It is apparent that the elimination from the body is rapid though traces persist, notably in the liver, for a long time. Though there is no assurance that the greater portion of even any of the selenium ingested by man and animals on seleniferous soils is in inorganic form and is therefore as toxic as sodium selenite, the foregoing studies will serve as an important guide in estimating the health hazard to those who live in regions where selenium occurs in the soil, water and food plants.

1. Selenium Problem, editorial, J. A. M. A. **104**: 50 (Jan. 5) 1935; Toxic Effects of Selenium, ibid. **106**: 926 (March 14) 1936; Selenium Content in Wheat, ibid. **107**: 134 (July 11) 1936; Selenium Poisoning in the United States, ibid. **107**: 968 (Sept. 19) 1936; The Possibility of Human Selenium Poisoning, ibid. **108**: 210 (Jan. 16) 1937.

2. Smith, M. I.; Westfall, B. B., and Stohlman, E. F., Jr.: Pub. Health Rep. **52**: 1171 (Aug. 27) 1937.

3. Smith, M. I.; Stohlman, E. F., Jr., and Lillie, R. D.: J. Pharmacol. & Exper. Therap. **60**: 449 (Aug.) 1937.

THE PATIENT HIMSELF

The phenomenal advances of medical science have so largely engrossed the attention of students and teachers of medicine that our schools are charged frequently with failure to teach the embryo physician that his patients are human beings and that he must treat individuals, not merely manifestations of a disease. One of our leading universities has made a definite effort to counteract this tendency and their experience of seven years seems to have more than justified the undertaking. Elsewhere in this issue, Bailey and Weiskotten[1] describe the procedure employed at Syracuse to demonstrate to undergraduate students the importance of considering the personality of the patient and all the factors, environmental and otherwise, which, impinging on him, inevitably influence and perhaps greatly modify his reaction to disease. Especially wholesome in the Syracuse plan is the stress on having the student himself investigate the social, economic, religious or industrial relationships of his patient instead of depending on the second hand information relayed by a social worker. On the doctor is laid the responsibility for understanding all the adjustments that may be needed in order to give to the patient the best possible chance of recovery. An index of the success of the method may be found in the work recently published by a Syracuse graduate, "Disease and the Man," which is briefly reviewed in this issue of THE JOURNAL.

1. Bailey, A. A., and Weiskotten, H. G.: The Training of the Student in What Is Involved in Adequate Medical Care, this issue, p. 2136.

V 1
193

Association News

RADIO BROADCASTS

The American Medical Association and the National Broadcasting Company present the fifth series of network health programs, beginning Oct. 13, 1937, and running weekly through June 15, 1938. The programs will be presented over the Red network each Wednesday at 2 p. m. eastern standard time, 1 p. m. central standard time, 12 o'clock noon mountain standard time and 11 a. m. Pacific standard time.

The dates and topics of the broadcasts for the coming month are as follows:

Diet

December 29—Dietary Fads: facts vs. fallacies in relation to prevalent false notions on diet.

Contagious Diseases

January 5—Sneezes and Sniffles: cause, spread, prevention of colds, pneumonia and influenza; importance of early medical care.

January 12—Scarlet Fever, Measles and Whooping Cough: modern attitudes toward these diseases; their prevention by community cooperation.

January 19—Smallpox and Diphtheria: unnecessary diseases; preventable by immunization of infants.

The stations on the Red network are privileged to broadcast the program but, since it is a noncommercial program, they are not obliged to do so. Interest on the part of medical societies, woman's auxiliaries and others may have weight with program directors of local stations. A personal visit to the program director might be advisable if the program is not being taken by a local station. This is an opportunity for the appropriate committees of county medical societies to indicate their interest in having this program broadcast in their community and to enlist the interest of other groups.

Medical News

(PHYSICIANS WILL CONFER A FAVOR BY SENDING FOR THIS DEPARTMENT ITEMS OF NEWS OF MORE OR LESS GENERAL INTEREST; SUCH AS RELATE TO SOCIETY ACTIVITIES, NEW HOSPITALS, EDUCATION AND PUBLIC HEALTH.)

CALIFORNIA

Personal.—Ernest O. Lawrence, Ph.D., professor of physics and head of the radiation laboratory, University of California, Berkeley, was recently awarded the Hughes Medal of the Royal Society, London, for his work on the development of the cyclotron and its application to investigation of nuclear disintegration, according to *Science*.——Dr. Solomon Strouse, formerly of Chicago, has been appointed associate clinical professor of medicine at the University of Southern California Medical School, Los Angeles.

Residency in Physical Therapy.—A residency in physical therapy has been established at the Los Angeles County General Hospital. The resident must be a graduate of an approved medical school of recognized standing, must have completed satisfactorily one year's rotating internship in an approved hospital and possess, or be able to secure promptly, a physician and surgeon's certificate to practice in California. His experience must include one year's recent full time experience in the administration of physical therapy in an approved hospital, some of which must have been in a supervisory capacity. The Los Angeles County Civil Service Commission will give additional information concerning the residency.

Midwinter Course in Ophthalmology.—The seventh midwinter course of the Research Study Club of Los Angeles, January 17-28, will include sixteen lectures on ocular muscles by Dr. Alfred Bielschowsky, professor of ophthalmology, Dartmouth Medical School, Hanover, N. H. Other lecturers will include Drs. Edward Jackson, Denver; John O. McReynolds, Dallas, Texas, and Frederick Jobe, B.S., of the scientific bureau of Bausch and Lomb, Rochester, N. Y. Work on the ear, nose and throat will be covered by Drs. Arthur W. Proetz, St. Louis; Grant L. Selfridge, San Francisco; Walter P. Covell, San Francisco; Simon Jesberg, Los Angeles; Louis K. Guggenheim, St. Louis; John F. Barnhill, Miami Beach, Fla., and Vern O. Knudsen, Ph.D., Los Angeles. Applications to take the course should be made to Dr. Donald S. Dryer, secretary, 2007 Wilshire Boulevard, Los Angeles. The fee is $50. Dr. Barnhill's course in dissection and cadaver surgery of the head and neck will begin January 10. It is limited to fifty persons and the fee is $100.

COLORADO

Appointments to State Board of Health.—Dr. James S. Cullyford has been appointed director of the newly created division of rural health work and epidemiology of the Colorado State Board of Health. Dr. Cullyford graduated at the University of Colorado School of Medicine, Denver, in 1933 and received his certificate in public health from the University of Minnesota School of Public Health in June 1937. Frank S. Morrison, LL.B., has been appointed director of vital statistics of the state board. He recently completed a course on general statistics at the Johns Hopkins School of Hygiene and Public Health, Baltimore.

IDAHO

State Board Abandons Reciprocity Relations.—At its meeting in Boise, October 5-6, the Idaho Medical Examining Board passed a resolution canceling all reciprocity provisions in the granting of licenses for the practice of medicine and surgery in Idaho and provided that in the future all applicants will be examined by the Idaho board. It was provided further that an applicant for license will be entitled to a credit of 0.5 per cent for each year of practice obtained prior to his application for license in Idaho, not including years spent in hospital internship or residencies.

ILLINOIS

New Health District.—The public health units in Champaign and Urbana have been combined in a new health district, replacing the former separate health activities in the two townships. Dr. G. Howard Gowen has resigned as assistant to the chief, division of communicable diseases, state department of health, Springfield, to direct the new unit, effective December 6.

Society News.—Dr. Lee C. Gatewood, Chicago, discussed "Gastric and Duodenal Ulcer" before the Will-Grundy County Medical Society at Joliet November 24.——At a meeting of the medical societies of Lee and Whiteside counties in Sterling, November 18, Drs. Philip H. Smith, Evanston, Ill., and Raymond F. Grisson, Chicago, spoke on "Contraindication of Cesarean Section, Prevention and Treatment of Abortion" and on "Treatment of Infectious Diseases" respectively.——The Du Page County Medical Society was addressed in Elmhurst November 17 by Drs. Roland P. Mackay on "Treatment of Neurosyphilis" and Eric Oldberg on "Surgical Treatment of the Complications of Neurosyphilis"; both are of Chicago.——Dr. Walter H. Baer, Peoria, discussed "Shock Therapy of Schizophrenia: The Use of Insulin and Metrazol" before the Sangamon County Medical Society in Springfield December 2.

Chicago

Medical and Dental Laboratory Building Completed.—The new building containing the medical and dental laboratories of the University of Illinois has been completed and occupied. The new unit is of red brick collegiate gothic and cost $1,550,000. Seven of the fifteen floors are devoted to the medical facilities and the rest to the dental clinics. The building connects through corridors with a similar unit entirely occupied by the medical school and with the Illinois Research and Educational Hospital, which supplies the patients and nurses. New equipment includes a biplane fluoroscope. A cancer clinic is to be started in lead lined rooms in the basement with $300,000 already appropriated for radium and equipment, it is reported. Dr. David J. Davis is dean of the medical school; Frederick B. Noyes, D.D.S., of the dental school, and Dr. Major H. Worthington is in charge of the research and educational hospital.

INDIANA

Personal.—Dr. George E. Denny, Madison, has been appointed medical superintendent of the Muscatatuck Colony for feebleminded at Butlerville.——Dr. Herman G. Morgan has completed twenty-five years' service as secretary of the Indianapolis board of health.——Dr. and Mrs. Walter R. Hutcheson, Greencastle, have given a new $30,000 nurses' home to the Putnam County Hospital.

Health Units Made Permanent.—The state department of health recently announced that the four district health units established during the flood at Princeton, Huntingburg, New Albany and Rising Sun have been placed on a permanent basis. Dr. Wendell C. Kelly, Indianapolis, is in charge of the unit at Princeton, including Gibson, Pike, Posey and Warrick counties; Dr. Chester A. Hicks of the unit at Huntingburg, including Crawford, Dubois, Orange, Perry and Spencer counties; Dr. Charles K. Kincaid of the unit at New Albany, including Clark, Floyd, Harrison, Scott and Washington counties, and Dr. George M. Brother, Evansville, at Rising Sun, including Dearborn, Jefferson, Ohio, Ripley and Switzerland counties. A new district department was set up recently at Bloomington, including Monroe and Brown counties. Later it is expected that Johnson, Lawrence and Morgan counties will be added to this district.

KENTUCKY

Society News.—The Sixth and Seventh Councilor Districts of the Kentucky State Medical Association held a joint meeting in Somerset October 28 as guests of the Pulaski County Medical Society. The speakers were Drs. Carl Norfleet, Somerset, on "Accidental Injuries"; Rettig A. Griswold, Louisville, "Emergency Treatment of Fractures"; Thomas Cook Smith, Louisville, "Treatment of Pneumonia in Children"; Henry G. Reynolds, Paducah, president of the state association, "Some Phases of the Blindness Problem," and Carl C. Howard, Glasgow, "Practical Methods of Diagnosis."——Dr. Leslie L. Lumsden, U. S. Public Health Service, Washington, D. C., addressed the Jefferson County Medical Society, Louisville, December 6, on "Epidemiology of Tuberculosis" under the auspices of the Louisville Tuberculosis Association.——Dr. Herman B. Strull addressed the Louisville Urological Society, December 14, on "Anomalies of the Urinary Tract."——Dr. Jacob N. Bailey, Paducah, addressed the McCracken County Medical Society, Paducah, November 24, on acute cholecystitis.

LOUISIANA

Society News.—Dr. Harry E. Murry, Texarkana, Ark., was elected president of the Tri-State Medical Society at its meeting in Shreveport October 27-28. Vice presidents are Drs. Rufus B. Robins, Camden, Ark.; Robert K. Womack, Longview, Texas, and Shelton W. Boyce, Shreveport, and Dr. Ruel R. Robins, Texarkana, secretary. The next annual meeting will be in Texarkana.

Bulletin Dedicated to Dr. Matas.—The Orleans Parish Medical Society devoted its bulletin December 6 to Dr. Rudolph Matas, emeritus professor of general and clinical surgery, Tulane University of Louisiana School of Medicine, New Orleans. The tribute was in recognition of the dedication of the library at the medical school to Dr. Matas and to mark the presentation for the second time of the Rudolph Matas Vascular Award, created by the Violet Hart Fund. Prof. Reynaldo dos Santos, Lisbon, Portugal, received the medal (THE JOURNAL, November 13, p. 1642).

MARYLAND

Serum for Types VI and XIV Pneumonia.—The state department of health recently announced that it was making available to its seven laboratories serum for the treatment of two more of the many types of pneumonia, newspapers reported. The new serum will be for types VI and XIV. Serum for types I, II, V and VII already have been distributed to all state laboratories and a limited supply for types IV and VIII is available at the central laboratory in Baltimore, it was stated.

MASSACHUSETTS

Society News.—Dr. Walter E. Dandy, Baltimore, addressed the Berkshire District Medical Society November 22 on "Care of Injuries to the Head."——At a meeting of the Harvard Medical Society in Boston, November 23, Dr. Soma Weiss discussed "Pyelonephritis: Its Relation to Arterial Hypertension and to Bright's Disease."

Graduate Extension Courses.—The Massachusetts Medical Society, the state department of public health, the U. S. Public Health Service and the U. S. Children's Bureau are cooperating in a series of graduate courses to be given throughout the state during 1938. The first series will begin in January in Taunton, New Bedford, Salem, Melrose, Lowell, Cambridge, Norwood, Quincy, Brockton, Milford and Fitchburg, chosen as the centers of their respective districts. The subjects covered will include gonorrhea, syphilis, heart disease, rheumatic fever, obstetrics, pediatrics and pneumonia.

Personal.—Dr. Frederick F. Russell, professor of preventive medicine and epidemiology and hygiene, Harvard University Medical School, Boston, was recently awarded the Buchanan Medal of the Royal Society of England for his work in relation to public health problems on behalf of the International Health Division of the Rockefeller Foundation. Dr. Russell was general director of the division from 1923 to 1935.—— Dr. Ernest M. Morris, commissioner of health of Fall River for eight years, has resigned to join the staff of the Harvard School of Public Health, it is reported.

MICHIGAN

Dr. Magner to Address Joint Meeting.—Dr. William Magner, pathologist to St. Michael's Hospital, Toronto, will address a joint meeting of the Highland Park Physicians Club and the Wayne County Medical Society at the Detroit Museum of Arts, April 4, on "Pathogenesis of Anemia."

Society News.—Dr. Frank N. Wilson, Ann Arbor, addressed the Wayne County Medical Society December 6 on "Clinical Features of Coronary Heart Disease." Dr. Russell L. Cecil, New York, addressed the medical section of the society December 14 on "The Treatment of Lobar Pneumonia."—— The Detroit obstetric and urologic socicties were addressed at a joint meeting December 7 by Dr. John W. Harris, Madison, Wis., on "Pyelitis in Pregnancy."——The Washtenaw County Medical Society was addressed December 14 in Ann Arbor by Dr. Walter G. Maddock on "Intestinal Obstruction."

MINNESOTA

Pediatricians Celebrate Silver Jubilee.—The Northwestern Pediatric Society observed its twenty-fifth anniversary at a meeting in St. Paul December 8. The following program was presented:

Dr. James T. Christison, St. Paul, The History of the Northwestern Pediatric Society.
Dr. Frederick C. Rodda, Minneapolis, The Early History of the Pediatric Department of the University of Minnesota.
Dr. Tobias L. Birnberg, St. Paul, Outstanding Pediatric Developments of the Past Twenty-Five Years.
Dr. Edgar J. Huenekens, Minneapolis, Development of Preventive Pediatrics.
Dr. Olin W. Rowe, Duluth, Pediatric Personalities of the Past Quarter Century.
Dr. Walter R. Ramsey, St. Paul, In Memoriam (Dr. Julius P. Sedgwick).

NEW JERSEY

Personal.—Dr. Mieczyslaw Openchowski, Newark, has been appointed psychiatrist in a clinic for adults coming before the Essex County court of common pleas, recently established in the probation department. The work was formerly assigned to different physicians in special cases.

NEW YORK

Personal.—Dr. Augustus J. Hambrook, Troy, was recently appointed a member of the state advisory council on health and physical education in public schools, succeeding Dr. Floyd S. Winslow, Rochester.——Dr. Edward E. Haley, Buffalo, has been appointed deputy commissioner of health and director of the division of communicable diseases in the Buffalo health department, succeeding the late Dr. Charles A. Bentz, it is reported.

Newspaper Prints Medical Section.—The Canandaigua *Daily Messenger* published a six page medical section October 26 featuring physicians and hospitals of Ontario County, the *New York State Journal of Medicine* reports. Articles were used describing the activities of the county medical society and other organizations, the county public health nursing service and the county campaign against tuberculosis, illustrated with photographs. There was also an article on fake cancer cures by Dr. Morris Fishbein, Editor of THE JOURNAL, Chicago.

Society News.—Drs. Edward K. Cravener, Schenectady, and Elmer H. Ormsby, Amsterdam, addressed the Medical Society of the County of Montgomery in Amsterdam October 13 on "Fractures and Dislocations of the Cervical Spine" and "Organization of Medicine in Relation to Practice of Medicine in the Future" respectively.——Dr. Maurice Lenz, New York, addressed the Putnam County Medical Society, November 3, on "Radiation Therapy in Cancer."——Drs. James P. Cole, Buffalo, and John M. Swan, Rochester, addressed the Steuben County Medical Society at Bath, November 11, on "Surgical Treatment of Bone Tuberculosis" and "Function of a Cancer Committee in a General Hospital" respectively.——A meeting of the Medical Society of Rockland County at Letchworth

V 1
193

Village recently was devoted to discussion of syphilis, the speakers being Drs. William A. Brumfield Jr., Albany; Nathan Sobel, New York, and Frank W. Laidlaw, Middletown.——Dr. Stanley P. Jones, Mattituck, addressed the Suffolk County Medical Society at its meeting October 28 on undulant fever.——Dr. Herman G. Weiskotten, Syracuse, addressed the Syracuse Academy of Medicine, December 21, on "Trends in Medical Education."——The Hon. Max D. Steuer, New York, addressed a joint meeting of the Albany County Bar Association and the Medical Society of Albany County, November 22, on "Medicine and the Law."

New York City

Dr. Koller's Eightieth Birthday.—Dr. Carl Koller, who in 1884 introduced cocaine as a local anesthetic in operations on the eye, celebrated his eightieth birthday December 3. Dr. Koller was born in Vienna in 1857 and graduated from the University of Vienna in 1882. He has served as ophthalmic surgeon to Mount Sinai and other New York hospitals. In 1934 he received the medal of honor of the American Academy of Ophthalmology and Otolaryngology, in 1930 a gold medal from the New York Academy of Medicine and in 1929 the Kussmaul Medal by Heidelberg University, Germany.

Gifts to Columbia.—During October Columbia University received the following gifts for medical purposes, among others:

W. K. Kellogg Foundation, $15,000 for study of rheumatic fever.
Rockefeller Foundation, $7,333 for study of the common cold.
Philip H. Hiss, $2,300 added to the Philip H. Hiss Jr. Memorial Fund in the department of bacteriology.
Estate of F. Trubee Davison Jr., $1,500 for study of leukemia, lymphosarcoma and allied diseases.
The Anna Fuller Fund, $1,500 for tissue culture work in the Institute for Cancer Research.
William J. Matheson Foundation, $1,200 added to the Matheson Encephalitis Fund.
Dr. John D. Kernan, $1,000 for the otology research fund.

Personal.—Dr. Carmyn J. Lombardo, Brooklyn, has been appointed a member of the Board of Higher Education, governing body of the four city colleges.——Dr. Morris Hinenburg, medical director and superintendent of the Jewish Consumptives' Relief Society, Spivak, Colo., since June 1, has resigned and returned to his former position of executive director of the Jewish Hospital of Brooklyn, it is reported.——The Order of Merit of Carlos Finlay was recently conferred on the following members of the faculty of Cornell University Medical College as a recognition of their medical and public health services to Cuba: Drs. Henricus J. Stander, Wilson G. Smillie, Foster Kennedy, Edgar Mayer and Morton C. Kahn, Ph.D.——Dr. Livingston Farrand, former president of Cornell University, Ithaca, has been elected a member of the board of governors of the Society of the New York Hospital.——Dr. Eugene H. Pool, professor of clinical surgery, Cornell University Medical School, has been elected an alumni trustee of Columbia University.

NORTH CAROLINA

Society News.—Dr. Franklin Webb Griffith, Asheville, addressed the Buncombe County Medical Society, Asheville, November 15, on "Developments in Gynecology in the Past Thirty Years."——Dr. Coy C. Carpenter, Wake Forest, addressed the Mecklenburg County Medical Society, Charlotte, October 19, on "Medicolegal Practice in North Carolina."

Course in Medical Technology.—Wake Forest College School of Medicine, Wake Forest, in cooperation with Rex Hospital, Raleigh, plans to establish a school of medical technology, it was recently announced. The degree of bachelor of science in medical technology will be awarded for two years in the school, one in the hospital and one in practical work. Dr. Coy C. Carpenter, dean of the Wake Forest medical school, will be director of the school of technology.

OHIO

Health Commissioners' Conference.—The eighteenth annual conference of Ohio health commissioners with the state department of health was held November 3-5 in Columbus. The tentative program included addresses by Drs. Frank K. Harder, Cincinnati, on "Effect of Immunization on the Incidence of Diphtheria"; Herman N. Bundesen, Chicago, "City Health Problems"; John W. Wilce, Columbus, "Improved Health Standards for Athletics and Physical Education," and Carl A. Wilzbach, Cincinnati, "Cancer Control, a Public Health Problem."

Society Campaign on Syphilis.—The Toledo Academy of Medicine will conduct an educational campaign on syphilis January 10 to February 10, according to the December bulletin. The campaign will have two phases. Newspapers will be asked to cooperate and civic organizations to schedule talks on syphilis for their January meetings, for which the academy will furnish speakers. The second purpose is to get infected persons under treatment and, as a contribution of physicians to the campaign, the academy recommends that for the first ten days of February members take samples of blood free of charge from patients presenting themselves for examination. The fee for the laboratory test has been reduced to $2 by the pathologists as their contribution to the campaign.

Society News.—Dr. Charles A. Doan, Columbus, addressed the Mahoning County Medical Society, Youngstown, November 16, on "Further Analysis of the Varied Mechanisms Underlying the Clinical Anemias."——Dr. Roy W. Scott, Cleveland, addressed the Lorain County Medical Society, Lorain, November 9, on "Diagnosis and Management of Cardiovascular Disease After Forty."——Dr. Samuel Rich, East Liverpool, discussed "Relationship of the Eye to General Diseases" at a meeting of the Columbiana County Medical Society in Lisbon, November 16.——Dr. Robert C. Austin, Dayton, discussed surgical treatment of hernia at a meeting of the Auglaize County Medical Society, Wapakoneta, November 5.——Dr. Edwin J. Stedem, Columbus, addressed the Perry County Medical Society, New Lexington, November 18, on "Hormonal Treatment of the Menopause."——Dr. William S. Middleton, Madison, Wis., addressed the Stark County Medical Society, Canton, December 16, on "Modern Treatment for Pneumonia." Dr. John S. Lewis Jr., Youngstown, was the speaker November 9, on "The Upper Urinary Tract in Adnexal Disease."——Dr. J. Isfred Hofbauer addressed the Cincinnati Obstetric Society October 15 on "The Intravenous and Intracervical Use of Pituitary Extract."

PENNSYLVANIA

Society News.—Dr. Chauncey L. Palmer, Pittsburgh, chairman of the committee on public health legislation of the Medical Society of the State of Pennsylvania, addressed the Westmoreland County Medical Society at a meeting December 14 at the Mountain View Hotel, near Greensburg, on public health legislation. Dr. Paul G. McKelvey, Greensburg, described "Hunting in the Great Northwest of Canada."——Dr. John L. Atlee, Lancaster, addressed the Lebanon County Medical Society, Lebanon, December 14, on hernia.

Clinic in Honor of Dr. Guilford.—The Good Samaritan Hospital, Lebanon, and the Lebanon County Medical Society inaugurated November 23 the William Moore Guilford Clinic, which is to be a graduate clinic day observed each year during the week of Dr. Guilford's birthday. Dr. Guilford was 105 years old November 26. Dr. Oliver H. Perry Pepper, professor of medicine, University of Pennsylvania School of Medicine, Philadelphia, was the guest and conducted a clinic on blood dyscrasias. Dr. Guilford was unable to be present. A delegation visited him early in the afternoon and presented to him resolutions adopted by the sponsors of the clinic.

Philadelphia

Personal.—Dr. Louis H. Clerf, professor of bronchoscopy and esophagoscopy, Jefferson Medical College, has been made professor of laryngology and bronchoscopy, *Science* reports. He will take over the work of Dr. Fielding O. Lewis, who has been made emeritus professor of laryngology and consulting laryngologist to Jefferson Hospital.

Pittsburgh

Special Course on Pneumonia.—A special course on sputum typing and administration of antipneumococcus serum was given at St. Francis Hospital, December 14-17. The work consisted of (1) practical demonstrations in sputum typing on submitted specimens, and (2) indications, contraindications, reactions for and from the various serums with technical demonstrations of administration. The course was arranged by the committee on graduate education of the Allegheny County Medical Society, and the instructors were Drs. William K. A. Nealon, Murray B. Ferderber and Philip G. Leavy.

RHODE ISLAND

Hospital Dinner.—The board of trustees of Miriam Hospital, Providence, gave a dinner in compliment to its medical staff December 18 at the Crown Hotel, Providence. Dr. Morris Fishbein, Editor of THE JOURNAL, Chicago, was the guest speaker on "The Hospital and the Community."

Cancer Fund Started.—An anonymous donation of nearly $200,000 was recently given to the Rhode Island Hospital, Providence, for use in fighting cancer, newspapers recently

announced. It is planned to use the money as the nucleus of an endowment fund to establish a self-sustaining cancer service for indigent patients at the hospital, it was said.

SOUTH CAROLINA

Personal.—Dr. Andrew A. Walden, North Augusta, was chosen as the outstanding citizen of the town by the local post of the American Legion and received a bronze plaque at ceremonies on Armistice Day.——Dr. John F. Busch has resigned as superintendent of the Greenville County Sanatorium, Greenville, to join the staff of the Georgia State Board of Health, it is reported.

TENNESSEE

Society News.—Dr. Eugene Orr, Nashville, addressed the Davidson County Medical Society, Nashville, October 26, on "Pseudosinusitis."——Speakers at the meeting of the Hardin, Lawrence, Lewis, Perry and Wayne Counties Medical Society in Savannah October 26 were Memphis physicians: Drs. Robert Lyle Motley, on "Treatment of Congestive Heart Failure and Edema in General"; Lucius C. Sanders, "Thyroid Disease, with Special Reference to Its Effect on the Heart"; Mike W. Holehan, "Etiology, Pathology and Rational Treatment for Hemorrhoids" and Charles W. Ingle, "Treatment of Malignant Tumors of the Breast."——Dr. Alvin J. Weber Jr., Knoxville, addressed the Knox County Medical Society, Knoxville, October 26, on "Infirmities of the Aged."——Drs. Homer D. Hickey and John W. Hocker, Chattanooga, addressed the Hamilton County Medical Society, Chattanooga, November 11, on "Gallbladder Surgery" and "Diphtheria: Its Diagnosis and Management" respectively.

VIRGINIA

Graduate Course at the University.—The fourth graduate course in ophthalmology and otolaryngology was held at the University of Virginia Department of Medicine and the University Hospital, December 14-17. The following were instructors: Drs. Francis H. Adler, Oscar V. Batson, Philadelphia; Bernard Samuels, James W. White, Frederick M. Law and Robert E. Buckley, New York; Vincent W. Archer, Charlottesville, and Stacy R. Guild, Ph.D., Baltimore, and Mr. Edgar B. Burchell, New York.

Society News.—A symposium on diseases of the respiratory tract was presented at a meeting of the South Piedmont Medical Society, November 16, by Drs. Edward B. Robertson, Danville; James Morrison, Lynchburg, and Rawley H. Fuller, South Boston.——Dr. Horton R. Casparis, Nashville, Tenn., addressed the Norfolk County Medical Society recently on "Medical Aspects of Child Training."——Drs. Francis Bayard Carter and Wilburt C. Davison, Durham, N. C., addressed the Danville-Pittsylvania Academy of Medicine at a recent meeting on "Toxemias of Pregnancy" and "Sulfanilamide Therapy" respectively.——At the quarterly meeting of the Mid-Tidewater Medical Society at Millers Tavern, October 26, the speakers were Drs. Harry A. Tabb, Gloucester, on "Practical Methods of Infant Feeding"; Malcolm H. Harris, West Point, "Treatment of Burns in the Home," and Clarence Campbell, Sparta, "Eclampsia."——Dr. John T. Hundley Jr., Lynchburg, addressed the Lynchburg Academy of Medicine, November 1, on "Clinical Significance of Erythrocyte Sedimentation Test."——Dr. Howard R. Masters, Richmond, addressed the Fredericksburg Medical Society at its November meeting on mental hygiene.

WISCONSIN

Personal.—Dr. Archibald D. Campbell, Richland Center, was honored with a testimonial dinner, October 21, by physicians of the community and the surrounding territory. Dr. Campbell is 72 years old and graduated from the Louisville Medical College in 1896.——The house of delegates of the State Medical Society of Wisconsin at its recent annual meeting decided to send the executive secretary of the society, Mr. J. George Crownhart, to Europe to make a critical first-hand study of sickness care operating under control of governments in various countries.

District Meetings.—Drs. Joseph E. Schaefer and Edward H. Hatton, Chicago, were the guest speakers at a joint meeting of the fifth councilor district of the State Medical Society of Wisconsin and the eighth dental councilor district, November 18. Dr. Marcos Fernan-Nunez, Milwaukee, spoke after dinner on "Spanish Medicine and the Spanish Revolution."——The autumn meeting of the ninth councilor district was held at Marshfield November 3 with the following speakers: Drs. Leland C. Pomainville, Wisconsin Rapids, on "Chest Injuries"; Clifford F. Broderick, Nekoosa, "Recent Advances in the Therapy of Arterial Hypertension"; Karl H. Doege and Robert S. Baldwin, Marshfield, "Clinical Cases of Nephritis"; Winchell McK. Craig, Rochester, Minn., "Surgical Treatment of Hypertension" and "Neurosurgical Aspects of Head Injuries," and Carl W. Apfelbach, Chicago, "The Importance of Pathologic Examinations."

Society News.—Dr. Walter P. Blount, Milwaukee, addressed the Brown-Kewaunee-Door County Medical Society, Green Bay, November 9, on "Fractures in Children."——At the annual meeting of the Grant County Medical Society in Lancaster in October the speakers were Drs. Arnold S. Jackson, Madison, on "Errors in the Diagnosis and Treatment of Hyperthyroidism"; Roscoe L. McIntosh, Madison, "Pyogenic Dermatoses"; Lyman A. Copps, Marshfield, "Indications for Bronchoscopy," and Alexander R. MacLean, Rochester, Minn., "Infantile Paralysis."——Dr. Matthew N. Federspiel, Milwaukee, addressed the Racine County Medical Society, Racine, November 3, on "Maxillofacial Injuries."——Dr. Milton Trautmann of the state board of health, Madison, discussed diagnosis and treatment of syphilis at a meeting of the Waupaca County Medical Society, New London, November 17.——Dr. John H. J. Upham, Columbus, Ohio, President of the American Medical Association, and Clarence A. Dykstra, Litt.D., president of the University of Wisconsin, Madison, were speakers at the annual dinner of the Medical Society of Milwaukee County December 9 in Milwaukee.

GENERAL

Changes in Status of Licensure.—The following action of the Florida State Board of Medical Examiners has been reported:

Dr. Lemuel A. Carter, Bunnell, Fla., license restored.

The Minnesota State Board of Medical Examiners reports the following action:

Dr. John Lynn Erickson, Canby, license suspended, November 12, for two years for "conduct unbecoming a person licensed to practice medicine and detrimental to the best interests of the public."

The Wisconsin state board of medical examiners reported the following action taken at a meeting October 14:

License of Dr. Elgie Kraut, Lancaster, revoked on the basis of a court record of his conviction and sentence for performing an illegal operation.

Fraudulent Salesman.—The National Publishers Association, Inc., reports the activities of a man who has been soliciting magazine subscriptions among physicians, giving the name of a fictitious company as the distributor. He has sold the magazines at low rates, pocketed the collections and made no report to the publishers. He is said to use a printed form carrying the name Frank Crowell, 55 West Forty-Second Street, New York, N. Y. There is no such person at the address given and mail so addressed will be returned marked "Unknown." The man uses the names L. Hordes, George Cowan, J. Stern and Jack Stern. The following description is given: age 30 to 32; height 5 feet 8 or 10 inches; weight 170; dark hair; dark complexion; thick lips; loud speech; rapid actions; displays nervousness; two teeth missing in front of mouth; lower teeth protrude slightly past uppers; slightly protruding lower jaw; shabbily dressed. The publishers association asks any person solicited by this man to notify the police and wire the association collect. The address is 232 Madison Avenue, New York, N. Y.

Impostor Defrauds Pathologists.—Physicians in Louisville, Ky., and Topeka, Kan., have recently reported activities of a man who poses as Dr. Eustace L. Benjamin, associate professor of pathology, Northwestern University Medical School, Chicago, and who thereby induces physicians to endorse checks subsequently proved to be worthless. Several other pathologists recently reported that they had been approached by this man, who has also used the names of Dr. Emmerich von Haam, Columbus, Ohio, and Dr. James P. Simonds, Chicago (THE JOURNAL, November 6, page 1552). The real Dr. Benjamin stated at that time that he cashed a check during the past winter for this man, who said then he was a pathologist from Mercy Hospital, Canton, Ohio. Checks for amounts ranging from $10 to $100 have been cashed for him by pathologists in several laboratories. The impostor is said to be about 40 years old, of average size, with hair tinged with gray. His neck is short and thick, his face is round and his eyes bulge somewhat. He is familiar with terminology and has a fair knowledge of laboratory methods, according to the reports.

Appendicitis Mortality in 1936.—Statistics from 183 American cities show that there were 14.4 deaths of appendicitis per hundred thousand of population during 1936, a slight reduction from the rate of 1935, which was 14.7. The lowest rate on record is 13, which occurred in 1918. Rates for individual

cities ranged from no deaths in Cicero, Ill., and Orange, N. J., to 87.7 in Shreveport, La. No satisfactory explanation of the great variation can be advanced without a thorough study of local factors, according to Frederick L. Hoffman, LL.D., consulting statistician of the Biochemical Research Foundation of the Franklin Institute, Philadelphia, who made the tabulation. The ten cities with the highest rates are: Shreveport, 87.7; Wilkes-Barre, Pa., 36.5; Sioux City, Iowa, 35.3; Passaic, N. J., 35.1; Oak Park, Ill., 34.1; Camden, N. J., 31.6; Nashville, Tenn., 30.9; Knoxville, Tenn., 30.1; Salt Lake City, Utah, 30.1, and Memphis, Tenn., 29.4. These rates are affected by local hospital facilities, the report said. The ten cities with the lowest rates, other than the two with no deaths, are: Newton, Mass., 1.4; Covington, Ky., 1.5; Union City, N. J., 1.6; Bethlehem, Pa., 1.7; Gary, Ind., 2.7; San Jose, Calif., 2.9; Newport, R. I., 3.3; Yonkers, N. Y., 3.4 and Fresno, Calif., 3.5. Mortality in the five largest cities was as follows: New York, 12.6; Chicago, 13; Philadelphia, 11; Detroit, 16.1, and Los Angeles, 15.1. Dr. Hoffman also analyzed the figures geographically and by age and sex. According to his table the rate was highest in the western mountain region, 25 per hundred thousand, a fact that might be explained by inaccessibility of medical and surgical aid, he pointed out. The rate for white men reached a maximum of 24.4 for the age group 75 to 79, while for white women the maximum rate was 16.8 for the age group 60 to 64.

General Meeting of Bacteriologists' Society.—The thirty-ninth general meeting of the Society of American Bacteriologists will be held in Washington, D. C., December 28-30, at the Mayflower Hotel under the presidency of James M. Sherman, Ph.D., Cornell University, Ithaca, N. Y. Among speakers who will address the section of medical bacteriology, immunology and comparative pathology will be:

Michael Heidelberger, Ph.D., New York, Antigenicity, with Special Reference to Infectious Agents.
Dr. Edwin W. Schultz, Stanford University, California, Antigenic Properties of Poliomyelitis Virus.
Dr. Harry S. Eagle, Baltimore, Effects of Formaldehyde on Horse Antipneumococcus Serum and Diphtheria Antitoxin and Their Significance for the Theory of Antigen-Antibody Aggregation.
Dr. Earl B. McKinley, Washington, D. C., Intradermal Tests in Leprosy with Antigens of Acid-fast Bacteria.
Walter J. Nungester, Sc.D., and Roy G. Klepser, Ann Arbor, Mich., A Possible Mechanism of Lowered Resistance to Pneumonia.
Dr. Chester S. Keefer, Boston, Bacteriolysins in Gonococcal Arthritis.
Dr. Perrin H. Long and Eleanor A. Bliss, Sc.D., Baltimore, Experimental and Clinical Observations upon Chemotherapy in Gonococcal Infections.
Dr. Ralph R. Mellon and Lawrance E. Shinn, Pittsburgh, Limiting Factors of Sulfanilamide's Action and the Phenomenon of Potentiation.
Francis B. Gordon, Ph.D., and Edwin H. Lennette, Ph.D., Chicago, The Blood Stream in Experimental Poliomyelitis.
Drs. Albert B. Sabin and Peter K. Olitsky, New York, Mode of Action of Zinc Sulfate Spray in Preventing Infection with Nasally Instilled Poliomyelitis Virus.
Jean Broadhurst, Ph.D., and Gladys Cameron, New York, Virus Forms Present in Scarlet Fever.

FOREIGN

Personal.—Sir Henry H. Dale, director of the National Institute for Medical Research, London, has received the Copley Medal of the Royal Society of England in recognition of his "important contributions to pharmacology, particularly to the pharmacology of muscle and neuromuscular transmission." In 1933 Sir Henry delivered the Dohme Lectures at Johns Hopkins University School of Medicine, Baltimore.——Major-Gen. William P. McArthur has been selected to succeed Lieutenant-General Sir James A. Hartigan as director-general of Army Medical Services when the latter completes his tenure of office March 1, 1938.

Government Services

Dr. Morgan Named Regional Consultant

Dr. Thomas E. Morgan, health officer of Pinellas County, Fla., with headquarters in Clearwater, has been appointed regional medical consultant to the Children's Bureau of the U. S. Department of Labor for the southeastern district. Dr. Morgan will have his headquarters in Washington, D. C. The southeastern district includes the District of Columbia, Delaware, Virginia, West Virginia, Georgia, Florida, North Carolina and South Carolina. Dr. Morgan, who is 37 years of age, graduated at the University of Georgia School of Medicine in 1925. For several years he was associated with the state board of health in Jacksonville and in June 1936 was appointed director of the newly created health unit in Pinellas County.

Foreign Letters

LONDON

(From Our Regular Correspondent)

Nov. 27, 1937.

What Is Wrong with the British Diet?

A former chief medical officer of the Ministry of Health, Sir George Newman, said that the British people were better fed than at any period of their history. That appears to be true; but, in the crusade now going on to improve the health of the people, attention is concentrated on exercise and nutrition, and alleged malnutrition has been used as a political weapon in attacking the government. No doubt there is room for improvement, but whatever defects exist in the British diet are due more to unwise spending than to want of means. In an article in the *Times*, the dietitian Sir Edward Mellanby says that we are at the beginning of a great movement to prevent ill health and disease. In the British diet the bulk of the foods—cereals, pork, poultry, white fish, vegetable oils, sugar and jam—are deficient in mineral elements, especially calcium, and in most of the vitamins. These deficiencies are not made good by the enormous consumption of the national beverages—tea, coffee, beer and alcohol. But there are "protective foods" which are rich in these essential substances—milk and other dairy products, eggs, green vegetables, liver and other glandular organs, fat fish such as herring, mackerel and salmon, fish oils and fruit. If a sufficiency of these protective foods is not eaten, poor physical development and certain forms of ill health follow. Our diet should include a much larger amount of these and not be overweighted, as it is, with energy-giving foods. Unfortunately the protective foods are relatively expensive as compared with cereals, so that the poorer the people the greater the proportion of nonprotective foods eaten. For the young and for adolescents the problem is much more important than for adults. This explains, Mellanby thinks, the many years that have elapsed between the discoveries of science and the present public interest in proper feeding. If a dietetic cure could have been found for cancer or chronic rheumatism of the adult, it would undoubtedly have been seized on with avidity. But our future adults should be considered. If we want British athletes to carry off the world's laurels, we must see that they grow from birth under conditions of perfect nutrition. There is less mystery in the remarkable athletic abilities of the Finns when it is remembered that their daily milk consumption is thrice per head that of the British.

The habit of giving children tea is wrong. Their normal drink should be milk containing from 3 to 3.5 per cent of fat, not rich in cream, which often upsets them. Mothers would be saved much trouble and anxiety if they gave their infants, even the breast fed, a small teaspoonful of cod liver oil daily, from the day of birth. Up to the end of adolescence the daily milk ought not to be less than one pint, and two pints would be better. This supplies the abundance of calcium required for the growth of the bones and teeth. The trouble with adults is that they eat what pleases them. They would be well advised to take a pint of milk daily and to look with favor on eggs, green vegetables and other protective foods. They would then be fitter and the days of chronic ill health would be delayed. For the sedentary well-to-do over 40, milk might well replace two of the three lots of meat indulged in daily. The objection that milk makes people fat holds only when it is taken as an extra; it ought to replace some of the bread, sugar or other energy-bearing foods. In Tristan da Cunha, where until latterly there was no bread or other cereal and the main food was milk, mutton, fish, eggs and potatoes, there was no rheumatism or arthritis and the teeth were relatively free from caries. In recent years well meaning people have been sending flour and

sugar to the island and, as might be expected, the first curse of civilized communities, dental caries, is increasing among the children.

The Reconditioning of Army Recruits

Until recently, army recruits had come up to prescribed physical standards and, if they did not, were rejected. But in this free country recruiting is purely voluntary and the obtaining of sufficient force for defense in a conscript Europe, armed to the teeth, has become a problem. The army authorities have therefore embarked on the experiment of endeavoring to make fit for the army, by dieting and exercises, men who previously would have been rejected. For the first time in army history a recruits physical development depot has been established. Formerly if a chest failed to fill the tape measurement or a head to touch the height recorder the applicant, perhaps otherwise full of promise, was rejected. Now the men who fall just below the borderline are taken on approval and undergo a course of training to make them fit. While the ranks were short by 10,000 men, 68 per cent of applicants were being turned away for minor disabilities. So far the experiment has been successful and those who appeared to be poor material have been turned into men erect in carriage, well developed and sound in wind and limb. Such defects as slight curvature of the spine, flatfoot and fast heart have yielded to the treatment. Further, the mechanization of the army has allowed differences of standard to be introduced. The first line fighting troops must be physically sound, able to march carrying a pack and able to eat "hard" rations. Men of the "mechanized class" need not be particularly good marchers, but they must qualify as marksmen and occasionally subsist on "hard" rations. Motor drivers normally receive cooked rations and are not called on to march but must have good sight. In recent years out of three men applying for enlistment one was rejected at sight, the second was rejected on physical medical or educational grounds, and the third was accepted.

PARIS

(From Our Regular Correspondent)

Nov. 27, 1937.

Suppression of Quackery

The uncontrolled exploitation of all sorts of cure-alls in the newspapers here and the license to advertise claims of miraculous cures, such as sympathicotherapy, the latest form of quackery here, has at last aroused the medical profession to plan a counteroffensive. In the November 21 issue of the *Concours médical*, Dr. Lavalée quotes the paragraphs of a bill which Mr. Henri Sellier, who was minister of public health until the resignation of the last cabinet, had planned to have passed by the legislature. In the first section, any one who advertises a drug or method of diagnosis or cure is prohibited from using the word "cure," to publish any testimonial in which a "cure" is described, to add any comments on the medical aspects of any method or drug or to describe the symptoms of the disease which can be relieved. These restrictions are especially applicable to reputed tuberculosis, cancer and venereal or menstrual disturbance "cures." All such infractions are to be penalized. This proposed law was criticized because it left a loophole for quacks who claim to cure hernias, varicose veins, obesity and diseases of the scalp, rheumatism and other conditions, but the ex-minister of public health said that before the bill became a law these forms of quackery could be included.

Unfortunately, this bill was never introduced and the journals are filled with the advertisements of all forms of quackery. One of these, sympathicotherapy, which makes diagnoses by pressure on supposed sympathetic nerve endings in the nasal septum, has a dozen branch offices in Paris and some in every large city of France. Lavalée in his editorial states that as long as no laws exist to suppress quackery the only hope of the profession is to try to enlighten the public by all forms of propaganda by means of the radio, cinemas and newspapers. The question is Who will pay for such a campaign against quackery, and how much will it accomplish? A certain number of people want to be deceived and will lend an attentive ear to claims of cures which border on the miraculous.

One means of combating this ever increasing wave of quackery would be to have a council on pharmacy and chemistry (like that of the American Medical Association) appointed, to which manufacturers of pharmaceutical specialties, of which there are thousands in France, should submit their preparations voluntarily for the approval of the council. Any one who knows the chaotic state at present of such supervision in France will welcome the plan, but Lavalée says that the task of the council will not be an easy one. It would be ideal to have laws in force which already exist in other countries, that all foods and drugs must receive official approval before being placed on sale.

Social Laws and Hospitalization

At the first French Hospital Congress, held recently in Paris, a paper was read by Dr. Renon of Niort on the effect of assistance and other social laws on hospitalization in France. He emphasized that the old notion that public hospitals receive only those unable to pay no longer holds true for the present state of affairs. The advances made by the medical sciences on the one hand, but more particularly the evolution of the laws of assistance and of social medicine, have transformed the meaning of the term hospitalization. Although the number of persons who have received aid from the state has decreased considerably since 1890, the number of such persons who have been hospitalized has increased by 82 per cent, which means that less and less care is being given at the homes of the indigent. The legislation covering industrial accidents has also greatly added to the number who receive hospital treatment. Those covered by the social insurance law of 1930 are reimbursed for any outlays incidental to illness or confinements. The sums allowed for such care are so small that the majority of the insured find it cheaper to go to public hospitals, where a fixed rate of about $1.50 a day for the socially insured is less than they would be obliged to spend to be cared for at home or in a private hospital. It must be remembered that the socially insured are not reimbursed in full for their outlays, but only to the extent of 80 per cent of these.

At present, in addition to indigents, the industrially injured and the socially insured, a fourth group of "pay" patients are now received in public hospitals. There has been an increase since 1900 of over 210 per cent in the number of this fourth group who are being hospitalized. The growth of hospital facilities has not kept pace with the number of applicants for hospitalization, being only 76 per cent of what they ought to be. There is a complete lack of coordination between the social role of public hospitals and their technical and judicial organization. By the word judicial is meant that legislators pass all sorts of laws to promote the extension of free medical aid without taking into consideration the necessity of providing corresponding hospitalization facilities, particularly in the case of pulmonary tuberculosis. The only relief from the present situation is to permit all private hospitals to receive the socially insured at a fixed rate instead of limiting this privilege to those who have made contracts with the caisses, or social insurance disbursing offices. If the insured do not wish to enter private hospitals, provision should be made, at least in public institutions, for receiving the socially insured in small wards to be reserved for pay patients and every qualified physician should be allowed to take care of such patients, instead of limiting the privilege to the regular staffs of the public hospitals. In order to avoid the resulting confusion, only such physicians as have passed a special examination shall be allowed to treat private patients in public hospitals and receive remuneration from the patients. The latter privilege is also to be given members of

V 1
193

the regular staff who have occasion to treat such patients. This would put a stop to the present system of having the staff treat pay patients in public hospitals without any recompense.

French Ophthalmologic Congress

The first meeting of the French Ophthalmologic Congress was held June 28-30 in Paris. A paper on optochiasmatic arachnoiditis was read by Drs. Bollack, David and Puech, based on 129 observations, of which sixty-three were found in the literature and the others from the neurosurgical service of La Pitié Hospital. An exploration of the region of the optic chiasm had been carried out in all of the 129 cases. Clinically, they are characterized by varied visual disturbances and pathologically by changes which it has been possible to study only as the result of operative intervention. The extra-ocular clinical forms are less important than the purely ocular ones. The latter can be placed in three groups: (1) the macular neuritis syndrome, characterized by a diminution of vision, a central scotoma and papillary changes, of which atrophy with poorly demarcated edges is the most typical; (2) a chiasmatic syndrome with decreased visual acuity, atypical and asymmetrical changes in the temporal field and by papillary atrophy, and (3) the simple atrophy syndrome of the optic nerve with concentric narrowing of the visual field. Certain forms with lateral hemianopia, with decrease on the nasal or horizontal side of the visual field, are less often seen.

The diagnosis is difficult because of the protean character of the symptoms and the fact that none are characteristic, being found in other conditions. Ventriculography is the most important method of differential diagnosis from tumors of the hypophysis.

A description was given of the technic of transfrontal exploration, which has a low mortality. The best results followed operation in early cases in which (*a*) visual acuity had not been altered materially in a peripheral direction and especially centrally, and (*b*) when a not too accentuated optic atrophy was present.

In the discussion, François of Belgium reported the experience of a patient who showed a bilateral papillary stasis with rapid diminution of vision after eighteen months' treatment for syphilis. The neurologic examination was negative but there were typical cytologic and chemical changes in the spinal fluid. Energetic antisyphilitic treatment did not prevent blindness, and a decompression was of no benefit. An exploratory endocranial exploration revealed an optochiasmatic arachnoiditis and was followed by a restoration of one-fifth vision to the left eye; a complete atrophy persisted on the right side. Three months later, pyretotherapy was used and resulted in a restoration of vision in the right eye of about two thirds and an almost normal visual field, which has continued for more than a year.

Recurrent Hematemesis with Splenomegaly

At the October 15 meeting of the Société médicale des hôpitaux a case was reported by Milhit and his associates of recurrent gastric hemorrhages in a boy, aged 10 years, with greatly enlarged spleen. Microscopic examination of the spleen after its removal revealed a thrombosis of the splenic vein of long duration, as well as changes in the reticulo-endothelial structure. The rapid decrease in size of the spleen after a hemorrhage or the use of epinephrine shows that the splenomegaly is essentially the result of stasis. At operation an extensive collateral circulation is found already developed in the gastrosplenic and phrenosplenic ligaments. Removal of the spleen decreases the likelihood of formation of gastric varicosities, the rupture of which is followed by severe hemorrhages.

Grenet stated that this syndrome is not rare in children and that he had observed recurrence of hematemesis in spite of splenectomy. The latter should not be done if there was marked diminution in size of the spleen after administration of epinephrine.

Fiessinger had seen cases of splenomegaly with and without phlebitis and thrombosis. The occurrence of phlebitis and thrombosis of the splenic vein did not bear any etiologic relation. A primary splenothrombosis is rare. No reliance is to be placed on contraction of the spleen following the use of epinephrine.

Milian stressed the syphilitic origin of many cases and said that one should not be satisfied unless this treatment had been given a long trial. Tzanck had seen cases in which syphilis existed but said that antisyphilitic treatment had not been followed by any improvement. Chevallier agreed with Milian that syphilis plays an important part in the etiology. Typical cases of splenomegaly of the Banti type are encountered in which hematemesis was never reported yet at necropsy submucous gastric hematomas are found. The hematemesis is often due to lesions of infectious character involving the spleen, liver, stomach and radicles of the portal vein. The process may begin in the spleen or the liver. In Banti's disease with thrombosis of the portal vein and without gastric hemorrhages, splenectomy gives excellent results but they are less satisfactory when hematemesis exists. Even so, splenectomy should be given a trial in spite of occasional reports of postoperative death from gastro-intestinal hemorrhage.

BERLIN

(From Our Regular Correspondent)

Nov. 8, 1937.

Congress of German Neurologists and Psychiatrists

A joint congress of German neurologists and psychiatrists was held recently. The first topic for discussion was "Brain Tumors." Tönnis contrasted German and foreign data on brain surgery and pointed out the great advances that have been made in diagnosis and therapy. And yet often a diagnosis of brain tumor is not confirmed by operation. Epilepsy was next discussed. On the basis of the German eugenic laws, Pohlisch feels that the term "epilepsy" should be restricted to the hereditary disease. Phenobarbital should be prescribed only in small doses; larger doses produce an exacerbation of the epilepsy. It was the consensus with regard to the metrazol test for suspected epilepsy that in view of the nonspecific character of the induced attacks the drug should be contraindicated as a diagnostic aid.

Another principal theme was "The Use of Tests in Psychotherapy and Vocational Guidance." Enke said that most psychiatric tests may well be rejected, as they are unable to establish irrationality of the human mind. He referred to Kraepelin and his school, who elaborated the technic of mental tests. Yet if any test elucidates even a few details of the pathologic processes, it should not be rejected. The mental test may be of immediate utility within the general scheme of examination but certainly not for itself alone. Special training is necessary for the application of such tests; above all, the observations must be studied in relation to the constitutional type. Of particular importance is the Rorschach test, which helps to establish not only the working capacity but the intellectual possibilities as well. Jung's association test is too little used; it facilitates diagnosis and shortens the course of treatment. Graf spoke on the use of tests in vocational guidance. He emphasized that a test does not guarantee that the subject who shows himself experimentally qualified for a certain occupation will, in fact, be contented in it. Graf advocates a new orientation of psychology as applied to vocational guidance; the important thing is not what the person is capable of doing but what he wishes to do. The speaker referred to the significance of constitutional type psychology for vocational guidance and to the difficulties encountered in this direction; for instance, the question of how far the biologic type permits itself to be determined with certainty. Lottig discussed the value of mental tests for aviators. He said that one cannot establish all pertinent facts by tests and

that the most accurate criterion is still provided by a record of the person's achievements, by an examination of his life history.

Insulin and metrazol therapy of schizophrenia was the final theme discussed. Küppers considers that insulin shock treatment eclipses all other procedures. According to his observations only about 20 per cent of schizophrenic psychoses remain uninfluenced by insulin. There are no accidents worthy of mention if the procedure is skilfully performed. The speaker pleads for its general introduction. In the general discussion, combined insulin-metrazol therapy was rejected; the insulin therapy was almost unanimously conceded superiority. Remissions following the use of insulin were also much better than following the use of metrazol. The opposition which the utilization of insulin therapy for schizophrenia still encounters should be combated.

The German Society of Pathology

A well attended convention of the German Society of Pathology was held in September at Frankfort-on-the-Main under the chairmanship of Beitzke of Graz. The opening theme was "Allergic Manifestations in Tissue." Professor Berger, Graz internist, differentiated allergic immunity, allergic disease and allergic reactions to vitropression. An identical reaction may be produced by wholly disparate etiologic factors: hormone, chemical, thermic, neurogenic, psychic. Schmidt of Marburg spoke on the pathogenesis of allergies. He dealt at some length with anaphylaxis and serum sickness as well as with the Sanarelli-Schwartzman phenomena. Kalbfleisch of Frankfort-on-the-Main discussed the morphology of allergic manifestations, which he relates particularly to rheumatism, scarlatina and periarteritis. Many genuinely allergic manifestations are not macroscopically discernible; often it is not possible morphologically to demonstrate the nature of a process, namely, whether it is of allergic or of other origin.

Dietrich of Tübingen stressed the significance of allergic vascular reactions for the problem of thrombosis. Watjen of Halle discussed the question Is there an allergic basis for the central lobular necroses of the liver frequently observed in infections, as well as in the presence of congestions, metabolic disturbances and carcinoma? The consensus among the delegates seemed to be that there is no such thing as a true morphologically specific allergic reaction and that, for example, the much discussed fibrinoid degeneration and swelling of the connective tissues may also appear in other than allergic processes. Therefore, between "simple" and allergic inflammation there exist only differences in intensity.

The main theme on the second day of the congress was "Occupational Lesions and Cancer." Staemmler of Breslau referred to the inaccuracy of statistics for conclusions relative to the incidence and seat of cancer. K. H. Bauer, Breslau surgeon, said that according to his own observations a cancerigenic substance (benzopyrene) can also act as a therapeutic agent (in skin cancer).

It was agreed in the general discussion that the influence of silicosis on the pathogenesis of pulmonary cancer should be rejected.

Erroneous Diagnoses in Poliomyelitis

Professor Opitz, director of a municipal children's hospital in Berlin, mentions the frequency with which cases of poliomyelitis are falsely diagnosed. Of fifty-four children affected with poliomyelitis, the cases of only thirty-three were correctly diagnosed at the time of admittance. It is sometimes impossible to establish the diagnosis while the disease is in its preparalytic stage. It should be emphasized, however, that in late summer poliomyelitis ought to be considered if an ailing child presents catarrhal manifestations in the upper respiratory tract, mild conjunctivitis, fever and perspiration. If in addition the patient complains of headache and backache, influenza also may be suspected. However, even at this stage sure signs of the true disorder (poliomyelitis) may be present to a certain extent; for example, stiff neck, Kernig's sign, Brudzinski's sign, hyperesthesia, and diminution of the tendon reflex. These signs should be searched for in any event, since there are abortive cases in which the symptoms develop no further but in which the patient may be a transmitter of infection. Finally, one should keep in mind that sciatica and rheumatism are practically never encountered in children.

The Private Sickness Insurance

In addition to sickness insurance clubs that serve as public insurance underwriters there is in Germany, as elsewhere, an extensive private sickness insurance, a statistical report on which has just been published. On June 30 there were listed as belonging to the group of "private sickness insurance" 615 organizations; namely, 105 larger and 510 smaller sickness insurance clubs. The membership of these clubs on June 30 was 6,981,943 as contrasted with 6,744,460 on Dec. 31, 1936, and 6,264,968 on June 30, 1936. During the first six months of 1937 these clubs received in premiums 152,200,411 marks against 135,000,000 marks in the first half of 1936. The expenditures of the clubs during the first half of 1937 amounted to around 114,000,000 marks against around 99,000,000 marks in the first half of 1936. To still another group, the so-called public service sickness insurance, belong thirty-four organizations with a membership of about 1,900,000 insured. The income of these clubs for the first six months of 1937 was 30,000,000 marks, the amount disbursed in payment of claims 25,000,000 marks.

The Alcohol Test in Traffic Accident Cases

In a recent report on the problem of alcoholism and traffic accidents, Dr. Hoffmann of the Sanitary Bureau of the Chief of Police points out how carefully the police proceed with the blood tests and how informative such tests can be. From Oct. 1, 1932, to Dec. 31, 1936, the Prussian police conducted 3,600 blood tests for alcohol. The Widmark method was followed. The published report discloses that the greatest danger of a traffic accident was present on Saturday (20.4 per cent of all accidents occurred on Saturdays) and on Sunday (17.5 per cent of all accidents occurred on Sundays). In 67 per cent of the cases the blood specimen was removed between 7 p. m. and 5 a. m. The greatest number of traffic offenders were from 30 to 34 years of age. Nineteen women, eight of them married, had to be booked for driving while intoxicated.

ITALY

(From Our Regular Correspondent)

Nov. 30, 1937.

Synthetic Camphor in Italy

Synthetic camphor was recently placed among the drugs in the Italian official pharmacopeia. The General Department of Public Health sent a circular letter to municipal physicians and pharmacists which contains precise regulations. Jars containing camphor of several varieties in drug stores shall have a label showing, specifically, the quality of camphor contained in it. Pharmacists will fill prescriptions which call for camphor with the pure article unless otherwise specified. Labels on pharmaceutical products containing camphor should denote the nature of the camphor, whether synthetic, natural or Japanese.

Balneary Donated to University

Dr. Eugenio Viviani donated the largest part (six sevenths) of the Salice balneary to the Milan University. The donation includes the balneary, springs, hotels and parks. This is the first time an Italian university was ever presented with a balneary of such great value. The Salice springs have waters containing sulfur, sodium chloride, bromides and iodides. The balneary is to be reorganized. There will be departments for research, teaching and clinical work.

V 1
193

Mortality in Italy

According to statistical data, the mortality in Italy diminished from 1919 to 1936. The annual average for the years 1919 to 1921 was 666,771 for the entire population of the country, which corresponds to 18.3 per thousand of population. From 1931 to 1936 it was 590,291, which corresponds to 14.1 per thousand of population. The annual average stillbirth rate was 4.5 per hundred births from 1919 to 1921. It was 3.4 per hundred from 1931 to 1936. Infant mortality was 129.4 per thousand from 1919 to 1921 and 104.1 from 1931 to 1936.

Society Reunion

The Società di Dermatologia e Sifilografia met recently at Palermo under the chairmanship of Professor Tommasi, the head of the clinic of the Palermo University.

Professor Marchionini spoke on the pathologic chemistry of seborrhea. A seborrheic constitution is necessary for the development of seborrheic eczema. The speaker, in collaboration with Manz, made determinations of the amount of total cholesterol and of the two fractions of cholesterol in chloroformic dialysates of normal skin of patients suffering from seborrhea. The amount of total cholesterol in the superficial layers of the skin of patients suffering from oily seborrhea is increased in comparison to that in the skin of normal persons and the cellular fats contain a large amount of ether. The disorders of the fat metabolism of the skin in seborrhea originate in increased production of cellular fats, which contain a large amount of ether, in the horny layer of the skin. In acne vulgaris the amount of free cholesterol is increased, owing to the accelerated secretion of the sebaceous glands.

Professors Monacelli and Puglisi reported a case of Bowen's disease in which clinical and microscopic studies were performed. A woman, aged 34, suffered from the disease for seven years. The disease involved the vulvar mucosa and coexisted with lichen planus of the mucosae of the mouth and genitalia. Microscopic studies of tissues from the vulvar lesion showed the typical structure of Bowen's disease, which developed from local recurrences of lichen planus.

Professors Bosco and Berna reported studies of the reticuloendothelial system of lepers which were carried on by Reimann and Adler's congo red test. The granulopexic power is reduced in lepers. The leprous nodules do not retain the stain.

Professor Puglisi studied, by means of pharmacodynamic tests, the behavior of the neuro-endocrine apparatus of patients who were suffering from vitiligo and alopecia areata. The two conditions have the same origin. They develop from local vasoconstriction, which is intensified by the presence of hypersympathicotonia.

BUDAPEST

(From Our Regular Correspondent)

Nov. 9, 1937.

Centennial Jubilee of the Budapest Royal Medical Society

The Budapest Royal Medical Society celebrated its centennial in the gala hall of the Hungarian Scientific Academy on October 7-10. The ceremony was attended by the prime minister, by the ministers of public instruction and interior, by the mayor of the city and by delegates from foreign medical and scientific societies. The opening address was given by Professor Verebelyi, after which Professor Eiselsberg, Vienna, professor of surgery, lectured on "Drainage and Tamponade." After the lecture, Professor Verebelyi handed to the Austrian guest a silver medal struck off for the occasion. Among the foreign delegates were Professor Kubik on behalf of the German university of Prague, Professor Wadi of the Medical Association of Esthonia, Professor Lubeck of the Medical Chamber of Esthonia, Mustakallio of the Finnish Medical Association, Copeman of the Royal College of Physicians, London, van Kapellen of the Netherlands Medical Society, Kahlmeter of the Swedish Medical Society and Koleszar of the Transalbanian Museum Association. In the afternoon Professor Staehelin of the Basel (Switzerland) University lectured on "The Change in Diseases in the Latter Decades." From statistics relating to the distribution of various infectious diseases, he concludes that phenomena which are strikingly divergent from one another are caused only by external circumstances. On the second day of the meeting a wreath was placed on the statue of Semmelweis and a memorial address was given by Professor Frigyessi of Budapest University. In the afternoon Prof. C. C. Guthrie of the University of Pittsburgh School of Medicine lectured on "Cancer of the Breast and the Results Achieved." In the evening, the city of Budapest entertained at a gala dinner. On the third day Professor Lepine, dean of the Lyons (France) University, read a paper on "Chemical Influences in Neurology." A gala performance of the Budapest Royal Opera and then a banquet by the Hungarian government ended the festivities.

Professor Szent-Györgyi

Those who have followed the activity of Professor Szent-Györgyi for years were not greatly surprised at his award of the Nobel prize. The young scientist commenced his research on the function of the adrenal gland in a basement laboratory of a university in the Netherlands. After indefatigable work at various other research centers over a period of several years he isolated vitamin C.

Professor Szent-Györgyi was born at Budapest, Sept. 15, 1893. His father was the descendant of a Transylvanian nobleman, and his mother is the daughter of the late Professor Lenhossek, a physician whose sons are prominent in the Hungarian scientific world. After graduating at Budapest University, Szent-Györgyi studied at Bratislava and later at Prague, Berlin and various English and American universities. Since 1930 he has occupied the chair of biochemistry at the Francis Joseph University in Szeged. Eleven years ago while at a university in the Netherlands he conceived the idea that the function of the adrenals must be in connection with the respiration of tissues. From this he went into a study of the respiration of plants, and he discovered in plants a substance which gave rise to peculiar chemical processes. His publications in the medical press by that time had made him well known, and the University of Cambridge offered its laboratory for him to use. There he had ample means to pursue his research. He was able to crystallize the mysterious substance from the adrenals and different plants. Then he received an invitation to the United States, where a finely equipped laboratory was placed at his disposal and here he was able to produce 20 Gm. of the problematic substance from the adrenals and plants; yet he still did not know what the substance was; much work was necessary to establish that the 20 Gm. of material which he brought from America to Szeged was vitamin C. Szent-Györgyi endeavored to produce from plants a greater quantity of this substance and mere chance played a part. At a certain dinner he did not relish green paprika, which he was accustomed to eat every day before meals, and he put it aside. He recalled that, among the long series of fruits, vegetables and plants which had been investigated in his laboratory in search of Vitamin C, green paprika was not included, so he took the rejected dinner portion to his laboratory and worked the whole night, discovering that green paprika, this popular and cheap vegetable, contains much vitamin C. It was not difficult now to make a large quantity of vitamin C, and shortly he was able to send quantities of it to biochemical laboratories in Europe and the United States as a present. Vitamin C is present in every constituent of the animal cell and it must therefore play a fundamental part in nature.

LACK OF VITAMIN RESULTING FROM ILLNESS

In a recent issue of the *Orvosképzés* (Postgraduate Medical Education) Szent-Györgyi says that the vitamin demand of various organs is not uniform, nor is it uniform in one and

the same person under different circumstances. Research has led to the observation that the vitamin C demand of a feverish patient is considerably higher than that of a normal person. Therefore it may come about that, while a patient is on a seemingly satisfactory diet, a lack of vitamin may arise and render his condition worse.

Purpura haemorrhagica of the vascular type may be cured with a certain botanical dye. These dyes, called botanical flavons, have been also named P vitamins. However, the diet of a patient suffering from purpura often does not differ at all from the diet of other persons living in the midst of similar circumstances. The question arises Why did this one person fall ill with purpura? The answer is Because his organism had an exaggerated demand, unsatisfied by regular diet, for this substance. Perhaps it is unable to bind the P vitamin taken in with foods. Such an organism can be brought into equilibrium only with a great excess of P vitamin. We encounter cases also in the therapeutic employment of vitamin C that can be explained only on this theory.

JAPAN

(From Our Regular Correspondent)

Oct. 25, 1937.

Extensive Outbreak of Dysentery

The number of the cases of dysentery which suddenly broke out on the evening of September 25 in the city of Omuta, with a population of over 110,000, amounted to 11,272 by October 18, with 491 deaths. Seventy per cent of the patients were children. It broke out in the houses where the water is supplied by the city waterworks. As to the cause, it was recently found that in the family of the superintendent of the watershed had been cases of the same disease. There are only forty practitioners in the city, and 114 doctors from medical colleges and hospitals in larger cities have been sent to assist, and two or three doctors from the neighboring towns and cities are being sent every day by turns to help them. Some of the primary school buildings are being used as hospitals. The society of pharmacists of the prefecture voluntarily sends two pharmacists every day to assist in the preparation of medicine. The central government sent health officials, who are assisting. One of the most difficult questions was how to deal with the excrement of each sick family. The farmers became afraid to haul the excrement to their farms and refused to do as before. The city authorities decided to haul it to the seaside to be burned. The epidemic is now rapidly subsiding.

Health Benefit Societies

In April 1922, when severe business depression resulted from the great war, a consumers' association in a highland district established for the first time a medical department as a means of relieving the union of the heavy burden of medical treatment of its farmer members. The following month another union was founded. These are said to have been the first health benefit groups in this country. At that time hardly any attention was given to it, but it has become a menace to all medical men today. Now the Department of Agriculture and Forestry has put its hand to the establishment of "health benefits," with the powerful aid of the Central Association of the Japan Industrial Guild. Notwithstanding the strong opposition by the medical associations, central and local, it has grown rapidly. There were in 1932 only twenty-six health benefit societies; in 1935 there were ninety-one. At the end of November 1936 the number amounted to 805. The unions are found in eighteen cities, 356 towns, 1,548 villages, and forty hamlets, and the number of members exceeds 500,000. At the same time, public institutions, great industries, mines and large manufacturers show a tendency to establish a medical office of their own for their workers. The practitioners here are also going to be excluded. The graduates of medical colleges, of late, seem to prefer to be panel doctors, perhaps thinking it a safe way to make a living. The college authorities are eager to send their graduates to new districts as panel doctors. They encourage the town authorities to form a new union, thus helping to increase the health benefit unions. The Japan Industrial Guild, the most powerful association of this kind, has much capital and influence over all the farm villages. It has recently made public a three year plan of expansion of the health benefit societies all over the country. The guild is said to oppose the plan of the government in dealing with medical matters.

Movement to Encourage Use of Domestic Medical Supplies

The Home Office, soon after the outbreak of the Sino-Japanese conflict, held a meeting to encourage the use of home-made medical articles, summoning all the chief manufacturers of medicine or "patent" medicine. One of the chief aims was to have a continuous supply of all kinds of medicine and to prevent a sudden rise in price, even if the foreign supply might have to be stopped. There was to be made a list of all available medicine, distributed far and wide among the practitioners. The list also shows the comparative effect of home-made medicines and the foreign products. In 1935 the home-made medicines and articles amounted to the sum of 140,000,000 yen, which showed rapid progress in this industry. On the other hand, the imported medicines and articles in that year amounted to 20,000,000 yen. It has almost been settled how to substitute home-made articles for foreign ones. This movement is to include dental medicines and articles. The dental association of Japan has long been engaged, under the guidance of the Home Office, in the supply of genuine home-made articles. With two or three exceptions, almost all the articles now in use by the dentists here are home-made ones.

Number of Dentists and Pharmacists

According to an investigation made in December 1935 the number of dentists was 21,067, while in the previous year there were 20,080. There were 274 dentists to 10,000 of the population. The pharmacists amounted to 26,732, and this is an increase of 1,775 when compared with the previous year. Each 10,000 of the population has 380 pharmacists, of whom 3,009 are working in the hospitals or clinics, while 1,683 are engaged in selling medicine.

Death of Dr. Ikeda

Dr. Yoichi Ikeda, one of the most prominent gynecologists, died at the age of 80, September 8, at Fukuoka in the house of his eldest son, Dr. Kazuo Ikeda, who is a surgeon. He was born in Saga in 1859 and graduated from the Tokyo Imperial University in 1883. He was well versed in German. The Japan Gynecologic Society owes its foundation in 1902 to him.

Marriages

EUGENE FLYNN, Corpus Christi, Texas, to Miss Birdie Kenny of Galway, Ireland, in Dublin, Ireland, July 3.

FRANK ELMORE WILSON, Mooresville, N. C., to Miss Esther Coleman Hambley, at Salisbury, in November.

RALPH M. LAUGHLIN, Tipton, Iowa, to Miss Geraldine O'Neil of Milwaukee, in Clinton, Iowa, November 8.

JAMES E. WHITMIRE, Sumner, Iowa, to Mrs. Virginia Amsden Goen of Manchester, November 13.

CLAYTON L. INGWELL, Deerfield, Wis., to Miss Fern Frances Nieland of Madison, November 11.

ALVIN O. HENDRICKSON, Fairchild, Wis., to Miss Maxine Hartwig of Madison, October 30.

LEWIS GRANT JACOBS to Miss Catherine Feeney, both of Madison, Wis., October 30.

ALDEN F. RISSER, Stewartville, Minn., to Miss Marion Evans of Minneapolis, October 9.

Deaths

Arthur Davenport Black ● Chicago; Northwestern University Dental School, Chicago, 1900; Northwestern University Medical School, Chicago, 1901; for twenty years dean of the Northwestern Dental School, and a member of the faculty since 1900, as professor of oral surgery, operative dentistry and oral pathology; a director of the Chicago Tuberculosis Institute; fellow of the American College of Surgeons; was an honorary member of scientific societies in America and abroad, including the Royal Society of Medicine of England, the German Academy of Natural Sciences and the Swedish Dental Society; past president of the Illinois State Dental Society, the American Institute of Dental Teachers and the International Association for Dental Research and served for several years on the National Research Council; in 1933 president of the Chicago Centennial Dental Congress; during the World War was advisor to the Surgeon General of the Army, in Washington; for twelve years served on the staff of St. Luke's Hospital; was the author of the "Index of Periodical Dental Literature," consisting of thirteen volumes; author and editor of four volumes of G. V. Black's work on "Operative Dentistry"; aged 67; died, December 7, in the Swedish Covenant Hospital, of myelogenous leukemia.

Francis A. Long ● Madison, Neb.; State University of Iowa College of Medicine, Iowa City, 1882; member of the House of Delegates of the American Medical Association, 1907, 1908 and 1911; president of the Nebraska State Medical Association, 1906-1907; one of the founders, past president and secretary of the Elkhorn Valley Medical Society; fellow of the American College of Surgeons; surgeon to the Union Pacific Railroad; served continuously since 1916 as chairman of the publication board and since 1920 editor of the *Nebraska State Medical Journal;* aged 78; died, November 24, of coronary thrombosis, chronic myocarditis and nephritis.

John Woodford Farlow ● Boston; Harvard University Medical School, Boston, 1877; for many years instructor in laryngology at his alma mater; past president of the American Laryngological Association, and the Medical Library Association; at various times associated with the Carney Hospital, Boston City Hospital, Free Hospital for Consumptives and the Boston Dispensary; formerly librarian of the Boston Medical Library; aged 84; died, September 24, at his summer home in Manchester.

William Warren Hildreth, New York; Columbia University College of Physicians and Surgeons, New York, 1910; member of the Medical Society of the State of New York; fellow of the American College of Surgeons; associate clinical professor of obstetrics at his alma mater; on the staffs of the Sloane Hospital for Women, New York, Nassau Hospital, Mineola, and the Tarrytown (N. Y.) Hospital; aged 53; died, October 18, of cerebral hemorrhage.

Edgar Raymond Hiatt ● Troy, Ohio; Indiana University School of Medicine, Indianapolis, 1916; past president of the Ohio Public Health Association; city and county health officer, and formerly health officer of the City of Logan and of Hocking County; served during the World War; aged 49; died, October 12, in the Stouder Memorial Hospital, of pernicious anemia and disease of the gallbladder.

John Ernest Greiwe ● Cincinnati; Medical College of Ohio, Cincinnati, 1889; formerly adjunct professor of medicine and lecturer on physical diagnosis at his alma mater; past president of the Cincinnati Academy of Medicine; fellow of the American College of Physicians; aged 72; died, October 28, in the Good Samaritan Hospital, of cerebral thrombosis.

Frank John Colgan, Rochester, N. Y.; University of Michigan Homeopathic Medical School, Ann Arbor, 1910; member of the Medical Society of the State of New York; served during the World War; member of the city health department; on the staffs of the Highland and Genesee hospitals; aged 49; died, October 12, of coronary thrombosis.

Harry Adler ● Baltimore; University of Maryland School of Medicine, Baltimore, 1895; formerly director of the clinical laboratory, associate professor of gastro-enterology, professor of therapeutics and professor of clinical medicine at his alma mater; on the staff of the Sinai Hospital; aged 65; died, November 1, of heart disease.

Ludwig Frederick Hooge ● Chicago; Chicago Homeopathic Medical College, 1889; College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois, 1903; aged 73; on the staff of the South Shore Hospital, where he died, October 7, of coronary thrombosis.

Charles Frederick Friend, Chicago; Hering Medical College, Chicago, 1895; member of the Illinois State Medical Society; formerly a medical missionary in Africa; on the staff of the Evangelical Hospital; aged 72; died, October 2, of carcinoma of the gallbladder and acute pancreatitis.

Yepros Martin Doodokyan, Chicago; College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois, 1908; member of the Illinois State Medical Society; aged 62; died, October 16, of mitral insufficiency, chronic nephritis and arteriosclerosis.

Jack Martin Estes, Abilene, Texas; University of Texas School of Medicine, Galveston, 1899; member of the State Medical Association of Texas; aged 63; was killed, October 10, near San Fernando, Calif., when struck by an automobile.

John H. Drach, Cockeysville, Md.; University of Maryland School of Medicine, 1880; member of the Medical and Chirurgical Faculty of Maryland; aged 77; died, September 11, in the Maryland General Hospital, Baltimore.

Thomas H. McCann, Portsmouth, Ohio; Kentucky School of Medicine, Louisville, 1894; member of the Ohio State Medical Association; formerly member of the city council; aged 73; died, September 3, at Minford.

John Thomas Peery, Corcoran, Calif.; University of Southern California College of Medicine, Los Angeles, 1906; member of the California Medical Association; aged 61; died in September.

James Manuel Johnson ● McLeansboro, Ill.; University of Illinois College of Medicine, Chicago, 1930; aged 35; died, September 24, in the Barnes Hospital, St. Louis, of infantile paralysis.

George Joseph Moser, New York; University of the City of New York Medical Department, 1878; member of the Medical Society of the State of New York; died, September 26.

Alfred Abraham Citrynell, Governors Island, N. Y.; Emory University School of Medicine, Atlanta, 1933; on the staff of the Station Hospital; aged 37; died, September 14.

John William Berryman, Scottville, Ill.; Keokuk (Ia.) Medical College, College of Physicians and Surgeons, 1902; aged 77; died, October 17, of carcinoma of the stomach.

James Enoch Vogan, Youngstown, Ohio; Western Pennsylvania Medical College, Pittsburgh, 1891; aged 76; died, September 24, of pneumonia, following an operation.

Samuel Wilson, Yatesville, Ga.; University of Georgia Medical Department, Augusta, 1891; member of the Medical Association of Georgia; aged 71; died, September 28.

John Henry Brett ● Cleveland; Western Reserve University Medical Department, Cleveland, 1904; chief surgeon at the Woman's Hospital; aged 54; died, September 2.

Cullen O. Thomas, Worthington, Mo.; Central Medical College of St. Joseph, Mo., 1903; member of the Missouri State Medical Association; aged 60; died, September 9.

Jacob Haas, New York; Eclectic Medical College of the City of New York, 1903; member of the Medical Society of the State of New York; died, September 23.

Gustave E. F. Anderson, Los Angeles; Rush Medical College, Chicago, 1893; formerly member of the city board of education; aged 74; died, September 17.

John Shepherd Eastland, Judsonia, Ark.; Philadelphia University of Medicine and Surgery, 1870; Civil War veteran; aged 92; died, October 8, of senility.

George Albert McDonald, Fairfield, Ill.; Hahnemann Medical College and Hospital, Chicago, 1895; aged 72; died, September 28, of acute endocarditis.

Dennis L. Hill ● Wickham, W. Va.; Chicago Medical School, 1920; mayor of Mabscott; aged 47; died, September 19, in a hospital at Beckley.

Peter H. Fitzgerald, Woodburn, Ore.; Willamette University Medical Department, Salem, 1886; aged 79; died, September 14.

Samuel Milton Humphreys, Columbus, Ohio; Ohio Medical University, Columbus, 1900; aged 62; died, October 29.

Claes William Johnson, Claremont, Calif.; Rush Medical College, Chicago, 1880; aged 81; died suddenly, October 9.

James Henry Turner, Brooklyn; College of Physicians and Surgeons of Chicago, 1891; aged 79; died, September 24.

J. W. Wisely, Kalamazoo, Mich.; Chicago Homeopathic Medical College, 1887; aged 80; died, September 19.

Henry Fidler ● New York; Long Island College Hospital, Brooklyn, 1907; aged 61; died, October 1.

Bureau of Investigation

MISBRANDED "PATENT MEDICINES"

Abstracts of Notices of Judgment Issued by the Food and Drug Administration of the United States Department of Agriculture

[EDITORIAL NOTE: The abstracts that follow are given in the briefest possible form: (1) the name of the product; (2) the name of the manufacturer, shipper or consigner; (3) the composition; (4) the type of nostrum; (5) the reason for the charge of misbranding, and (6) the date of issuance of the Notice of Judgment—which may be considerably later than the date of the seizure of the product.]

Table Gee Valuable Elements of Milk.—Table Food Concentrates, Inc., Chicago. Composition not given. Fraudulently represented as a palatable food containing extra milk units for growth in the young, and for tissue repair in both young and old, aiding digestion and elimination.—[*N. J. 26487; May 1937.*]

Epsolin.—Union Products Co., New York. Falsely represented as producing certain physiological effects through the action of epsom salt, whereas these were due to the phenolphthalein and aloin present.—[*N. J. 26488; May 1937.*]

Four Leaf Clovers.—Pilgrim Co., Chicago. Composition: Essentially boric acid, borax, starch and a pink coloring matter. Fraudulently represented as a remedy for female disorders, including leukorrhea, and as an antiseptic.—[*N. J. 26499; May 1937.*]

Mentos.—Mentos Products, Inc., Philadelphia. Composition: Essentially sulfur, borax, ammonia and water, with small amounts of perfume. Fraudulently represented to grow hair, stop dandruff and scalp disorders, eczema, sores, etc.—[*N. J. 26500; May 1937.*]

Italina Effervescent Salts.—F. Bonomo & Co., Trieste Importing Co., and Louis Lapone, New York. Composition: Essentially phenolphthalein, baking soda, tartaric acid, citric acid and sugar, flavored with lemon oil. Misbranded in being falsely represented as consisting wholly of effervescent salts and a lemon product; and fraudulently represented as a remedy for stomach troubles, excesses in eating and drinking, etc.—[*N. J. 26503; May 1937.*]

Owl Elixir Iron, Quinine and Strychnine.—United Drug Co. and Owl Drug Co., San Francisco. Composition: A liquid containing quinine sulfate, flavored with orange. Fraudulently represented as an effective treatment for wasting diseases, malaria, etc.—[*N. J. 26504; May 1937.*]

Mineral Life.—Mineral Life Laboratories, Inc., Des Moines. Composition: Essentially sulfur dioxide (0.1 per cent), sulfuric acid (0.04 per cent), salts of sodium, potassium, calcium, magnesium, manganese, iron, copper (0.1 per cent), and water (approximately 99.75 per cent). For inflammation, ulcerations, catarrh, sinus trouble, etc. Fraudulent therapeutic claims.—[*N. J. 26508; May 1937.*]

Universal Tonic Giessog.—J. L. Van Cleve, trading as Universal Medicine Co., Portland, Ore. Composition: Essentially extracts of plant drugs, alcohol (2.7 per cent by volume), glycerin and water. Fraudulently represented as a remedy for stomach, liver, kidney and nervous disorders.—[*N. J. 26510; May 1937.*]

Syl-Way.—Health Foundation of California, Los Angeles. Composition: Essentially dried yeast, dried milk, cane sugar, corn starch, cereal germ, and ground seeds resembling psyllium. For colitis, malnutrition, etc. Fraudulent therapeutic claims.—[*N. J. 26513; May 1937.*]

Vege-trate Formula BF-1 (Tablets).—Health Foundation of California, Los Angeles. Composition: Essentially rice bran, dried okra, seaweed, cinnamon, cranberry and leaf tissue, including a small amount of alfalfa leaf. Fraudulently represented as a remedy for hyperacidity, bloating, etc.—[*N. J. 26515; May 1937.*]

Vege-broth.—Health Foundation of California, Los Angeles. Composition: Essentially dried yeast, dried alfalfa, onion, tomato, cereal flour, red pepper, celery seed, okra and common salt. Fraudulently represented as a "mineral broth scientifically compounded to retain valuable minerals" which "Brings you life anew."—[*N. J. 26513; May 1937.*]

Milam Herb Compound.—Milam, Inc., Charlotte, N. C. Composition: Essentially extracts of plant drugs, including a laxative, and small proportions of nitric and salicylic acids. For "impure, impoverished or acid blood . . . all run-down and depleted conditions." Fraudulent therapeutic claims.—[*N. J. 26516; May 1937.*]

Tricasco.—Tricasco Laboratories, Chicago. Composition: Essentially water, sugar and extracts of plant drugs, including licorice. Fraudulently represented as a remedy for gallstones, weak eyes, gravel, tuberculosis, pneumonia, arthritis and many other disorders.—[*N. J. 26521; May 1937.*]

Lee's (L. G. C.) Herbal Compound.—Erie Laboratories, Cleveland. Adulterated in falling below the professed standard or quality represented, as it contained no potassium iodide, iron iodide, or significant amounts of iron peptonate or sodium salicylate. Misbranded because alcohol content was not declared on the label; fraudulently represented as a remedy for skin, liver and blood disorders, arthritis, fevers, etc.—[*N. J. 26523; May 1937.*]

Ward's Vitalized Tonic Tablets.—Savoy Drug & Chemical Co., Chicago. Adulterated in that the strength and purity fell below the standard of vitamin units declared; misbranded because of false and misleading claims.—[*N. J. 26524; May 1937.*]

Bromo-Foam.—Chancey A. Jones, trading as the Bromo-Foam Co., Tiffin, Ohio. Composition: Essentially baking soda (65 per cent), common salt (3.87 per cent), sodium salicylate (3.44 per cent), sodium bromide (2.90 per cent), caffeine (0.51 per cent), and citric acid, flavored with peppermint oil. Fraudulently represented as a cure for indigestion, headache, stomach disorders, etc.—[*N. J. 26951; July 1937.*]

Eczematone.—Barlow Chemical Association, Oklahoma City. Composition: Essentially corrosive sublimate, a trace of boric acid, alcohol (84 per cent by volume), and water. For scalp disease, eczema, acne, dandruff, falling hair, etc. Fraudulent therapeutic claims.—[*N. J. 26952; July 1937.*]

Eczematone Ointment.—Barlow Chemical Association, Oklahoma City. Composition: Essentially mercury and a mercury compound, in an ointment base. Fraudulently represented as a remedy for eczema, scrofula, and all other skin disorders.—[*N. J. 26952; July 1937.*]

Curarina De Juan Salas Nieto.—Richard Diener, trading as Curarina Agency, Oxnard, Calif. Composition: Essentially a water-alcohol solution of drug extractives, containing about 34 per cent of alcohol by volume, with traces of resin, saponin-like glucosides, and alkaloids. Fraudulently represented as a cure for disorders of the blood and heart, sciatica, rheumatism, malaria, diabetes, typhoid fever, smallpox, etc.—[*N. J. 26959; July 1937.*]

Dusena.—Sanovapor Laboratories, Huntington, W. Va. Composition: Essentially water (99¼ per cent) and sulfur dioxide (¼ of 1 per cent). Fraudulently represented as an effective treatment for diabetes, in conjunction with a recommended diet.—[*N. J. 26960; July 1937.*]

N-A No. 7.—N-A Co., Laurel, Miss. Composition: Essentially a solution of epsom salt, iron sulfate, water, and small amounts of calcium, manganese, aluminum and phosphate. For indigestion, rheumatism, kidney disorders, etc. Not a germicide, as represented. Fraudulent therapeutic claims.—[*N. J. 26976; July 1937.*]

N-A No. 7½.—N-A Co., Laurel, Miss. Composition: Essentially epsom salt, iron sulfate, water, and small amounts of quinine, aluminum, phosphate and chloride. Fraudulently represented as a remedy for stomach, liver and kidney disorders, malaria, etc.—[*N. J. 26976; July 1937.*]

Runser's Combined Eczema Lotion.—Earle Chemical Co., Wheeling, W. Va. Composition: Essentially water, alcohol, glycerin and boric acid, with small amounts of carbolic and salicylic acids, and wintergreen. Fraudulently represented as a remedy for eczema, scalp disorders, ivy and oak poisoning, etc.—[*N. J. 26977; July 1937.*]

Beck's Little Wonder Headache Powders.—A. L. Beck, Sharon, Pa. Composition: Essentially acetanilid (4½ grains per powder), caffeine and potassium citrate. Fraudulent representations.—[*N. J. 26979; July 1937.*]

Ruberb.—Keystone Laboratories, Inc., Memphis, Tenn. Composition: Chiefly water, sugar, epsom salt, alcohol, small amounts of salicylic acid and plant extractives including emodin, arbutin, and a trace of alkaloids. Fraudulently represented as a health, blood and nerve tonic, and a cure for indigestion, kidney and liver disorders, etc.—[*N. J. 26982; July 1937.*]

Keystone Kidney, Bladder, Rheumatism, Liver and Backache Remedy.—Keystone Laboratories, Inc., Memphis, Tenn. Composition: Chiefly water, sugar, alcohol, small amounts of potassium acetate, methenamine, juniper oil, benzoic acid and plant extractives. Fraudulent therapeutic claims.—[*N. J. 26982; July 1937.*]

Keystone White Pine Compound Expectorant.—Keystone Laboratories, Inc., Memphis, Tenn. Composition: Chiefly sugar, water, alcohol, plant extractives and chloroform. Fraudulently represented as a cure for coughs and bronchial affections.—[*N. J. 26982; July 1937.*]

Keystone Antiseptic Healing Oil Liniment.—Keystone Laboratories, Inc., Memphis, Tenn. Composition: Essentially small amounts of ammonia water, turpentine oil and camphoraceous material, a fixed oil, and water. Fraudulent therapeutic claims.—[*N. J. 26982; July 1937.*]

Sphinx Herb Tea (Formerly Musk's System Purifier).—Argyle Laboratories, New York. Composition: Essentially senna leaves and pods, with small amounts of fennel and anise seeds, elder flowers, buckthorn bark, dog grass, orange peel, ginger root and safflowers. Fraudulently represented as a remedy for blood poisoning, colitis, dizziness, etc.—[*N. J. 26990; July 1937.*]

Vagi-Anti-Septikones.—Erie Laboratories and Mrs. Bee's Health Laboratories, Cleveland. Composition: Suppositories containing hydroxyquinoline in cocoa butter. Fraudulently represented as a remedy for leukorrhea.—[*N. J. 26984; July 1937.*]

Henry's Deep Rock Oil.—Henry Evans, Washington, D. C. Composition: Essentially a petroleum oil, a tar oil such as cade, with wintergreen, turpentine and oil of cajeput. For pain, kidney and bladder disorders, asthma, rheumatism, weak lungs, etc. Fraudulent therapeutic claims.—[*N. J. 26985; July 1937.*]

Gay.—Strong Cobb & Co., Inc., Cleveland. Composition: In each tablet, 2.1 grains of acetylsalicylic acid, 1.7 grains of phenacetine, 0.25 grain of caffeine, and plant material including viburnum. Fraudulently represented as a prompt relief for menstrual pain and as containing no harmful drugs.—[*N. J. 26987; July 1937.*]

V 1
193

Rawleigh's Nasal Relief.—W. T. Rawleigh Co., Freeport, Ill. Composition: Essentially menthol, camphor and chlorbutanol. Fraudulently represented as a remedy for nasal catarrh, hay fever, etc.—[*N. J. 26991; July 1937.*]

Midol.—General Drug Co., New York. Composition: In each tablet, essentially 4.9 grains of aminopyrine and 0.4 grain of caffeine. Fraudulently represented as a harmless remedy for menstrual pain, headache and neuralgia.—[*N. J. 26992; July 1937.*]

Astyptodyne Ointment.—Astyptodyne Chemical Co., Wilmington, N. C. Composition: Pine oil (12 per cent) in petrolatum. Fraudulently represented as a remedy for hemorrhoids.—[*N. J. 26993; July 1937.*]

Stoco for Colds.—Stowe Co., Charlotte, N. C. Composition: Essentially acetanilid (3 grains per fluid ounce), alcohol, caffeine, phenolphthalein, salicylates, ammonium chloride, menthol, sugar, water, flavoring oils, emodin-bearing drugs, and plant extractives including licorice. Fraudulent therapeutic claims.—[*N. J. 26994; July 1937.*]

Gram's (Dr.) Grandmother Medicine.—Gram's Medicine Co., Cuyahoga Falls, Ohio. Composition: Essentially powdered plant material containing aloe, an emodin-bearing drug, and ginger. For all blood, liver, kidney and stomach diseases, diabetes, cancer, etc. Fraudulent therapeutic claims.—[*N. J. 26999; July 1937.*]

Correspondence

THE SEASONAL INCIDENCE OF ACUTE CORONARY OCCLUSION

To the Editor:—A communication from Dr. Paul D. Rosahn (THE JOURNAL, October 16, p. 1294) analyzed statistically the data on the seasonal incidence of acute coronary artery occlusion presented by Drs. Dack, Jaffe and myself in an article entitled "Factors and Events Associated with the Onset of Coronary Artery Thrombosis" in THE JOURNAL, August 21. We divided the seasons into autumn-winter (October to March inclusive) and spring-summer (April to September inclusive). The difference in the incidence of coronary artery occlusion in these two groups was only 2.6 per cent. Dr. Rosahn states that "when, however, a slightly different division of the published data is made, a wholly different conclusion results."

Monthly Mean Temperature, New York City

	1930	1931	1932	1933	1934	1935	Average
January	33.5	33	43	40	34.5	29	35.5
February	37	34	36	34	30	31.5	32
March	40	40.5	37	38	37	43	39
April	47.5	50.5	48.5	50	49.5	49.5	49
May	62.5	60.5	61	63	62.5	59	61.5
June	72	69.5	69	71	72.5	68.5	70.5
July	75	76.5	74	73.5	76	76	75
August	73	74.5	75	74	76.5	73.5	74.5
September	71	71	67.5	69	68	64	68.5
October	55	60.5	57.5	56	54	57	56.5
November	46	51.5	43.5	42	48	48.5	46.5
December	35	40.5	39	33	33.5	30.5	35

This "slightly different division" consists of winter-spring (December to May inclusive) and summer-autumn (June to November inclusive). Dr. Rosahn pointed out that when this is done the difference in incidence becomes 8.8 per cent, which may be significant from a statistical standpoint. However, this grouping is not, in our opinion, quite relevant to the problem of the influence of cold weather in New York City. We could not present, within the space limits of our original communication, data on the monthly mean temperature for New York for the years 1930-1935, published by the U. S. Department of Agriculture, Weather Bureau, Publication 1030, reproduced herewith. On the basis of these data, our grouping includes the five coldest months of the year. Dr. Rosahn's arrangement, on the other hand, combines only four of the coldest months. Furthermore, it includes May and omits November in the "cold" season group, although the mean temperature of May was 61.5 F., while that of November was 46.5 F. It is thus apparent that, with regard to cold, our grouping is the logical one. Dr. Rosahn was not aware, of course, of the temperature data.

Dr. Rosahn considers statistically significant the high incidence of attacks in January. We have had the invaluable assistance of Alfred J. Lotka, the assistant statistician of the Metropolitan Life Insurance Company, who believes that there is some justification in Dr. Rosahn's conclusion. However, several facts point to the correctness of our previous conclusion that coronary artery occlusion occurs irrespective of season or temperature. Thus it will be noted that the coldest month of the year, February, had next to the lowest incidence of attacks. Furthermore, in 237 additional cases observed since the original data presented were collected the highest incidence was in March, the third coldest month of the year. On the other hand, February, the coldest month, had an incidence only slightly more than half that of March.

It is obvious that a much larger series of cases will have to be studied to determine conclusively the influence of temperature on coronary occlusion and the significance of the increased incidence in January obtained in our original series. The relation of cold to angina pectoris has been erroneously applied, we believe, to coronary artery occlusion. In any case it is probable that the conclusions of previous writers, such as Wood and Hadley, who found that 87 per cent of attacks occurred in winter and only 13 per cent in summer, are unjustified.

We hope in the future to present the problem of the influence of weather and temperature on coronary artery occlusion in greater detail.

ARTHUR M. MASTER, M.D., New York.

RESUSCITATION

To the Editor:—In THE JOURNAL, November 6, Prof. Yandell Henderson discusses resuscitation of the new-born, particularly as it applies to the E. & J. resuscitator. With no attempt to question in any way the background of facts on which Professor Henderson draws his conclusions, it seems fair to point out that much of the argument used by him to sustain his thesis is hardly germane to the conclusions he draws.

At least one source of conflict rests on an improper use of terms. To speak of resuscitation in the new-born is a misnomer, when one is considering the initiation of respiration in an organism that has never breathed. Asphyxia neonatorum and asphyxia due to carbon monoxide gas are two different conditions, and the approach to the treatment of one may not be the approach to the treatment of the other. The attempt to apply to the problems inherent in the former the therapeutic principles applicable to the latter in appraising any type of resuscitator, is misleading and incorrect.

The reports of the commissions which Professor Henderson mentioned were concerned with shock and asphyxia due to gases. It is hardly to be supposed that the valuable observations of these commissions could be logically carried to the point of applying to an instrument designed to initiate respiration in an infant that had never breathed. Few who have interested themselves in the problem will disagree with Professor Henderson's conclusions that an instrument of this kind is irrational in asphyxia neonatorum, but there are many who with justification will disagree that the answer has been found in the Meltzer-Flagg technic. To many the procedure of inflating the infant lung as one would a balloon is abhorrent on both anatomic and physiologic bases. It is to be suspected that this first effort which opens the door to extra-uterine life has implications more subtle than a bicycle tire. In the present state of disagreement it would seem premature to put the final stamp of approval on one method or another. If we are to believe the excellent studies reported in the November issue of *Surgery, Gynecology and Obstetrics* by Wilson, Torrey and Johnson

there is compelling experimental evidence that forceful inflation of the infant lung even when done under extreme control is not only useless but as unsound physiologically and harmful anatomically as any respirator or pulmotor. It would be interesting and instructive to see more work done on this subject and meanwhile adhere to conservative measures that are known to be free from danger.

J. LYMAN HURLBUT, M.D., Mount Kisco, N. Y.

Queries and Minor Notes

THE ANSWERS HERE PUBLISHED HAVE BEEN PREPARED BY COMPETENT AUTHORITIES. THEY DO NOT, HOWEVER, REPRESENT THE OPINIONS OF ANY OFFICIAL BODIES UNLESS SPECIFICALLY STATED IN THE REPLY. ANONYMOUS COMMUNICATIONS AND QUERIES ON POSTAL CARDS WILL NOT BE NOTICED. EVERY LETTER MUST CONTAIN THE WRITER'S NAME AND ADDRESS, BUT THESE WILL BE OMITTED ON REQUEST.

DIAGNOSIS OF FEVER AND ABDOMINAL PAIN IN BOY

To the Editor:—A boy, aged 10 years, had some indigestion for four or five months that did not respond well to the usual alkaline treatment. Pain was made worse by taking of rich sauces, pickles and potatoes or preserved fruit in large quantities. Four weeks ago, pain developed over most of the abdomen but especially the upper part. He complained of pain also in the lower part of the chest, anteriorly and posteriorly, more frequently on the right side. The blood count revealed 3,909,000 red cells and 12,600 white cells with 75 per cent polymorphonuclears. Hemoglobin was 75 per cent. The Mantoux test was strongly positive, but tests for typhoid, undulant fever and paratyphoid fever were all negative. X-ray examination of the chest and gastrointestinal tract gave negative results. The temperature went as high as 103.8 F. and the pulse to 90. In one week the temperature came down to 99.4 but went up again to 101 and stayed high for a few days, gradually diminishing to 99 again with the pulse 80. Nearly all pain and tenderness have cleared up, but with sudden elevation of temperature the epigastric distress returns with attendant loss of appetite. Urinalysis and x-ray examination of the gallbladder region are reported negative. Repeated blood counts have been as before while the temperature still was high. Now, at the end of the fourth week, the temperature still goes to 99 and 99.4. The boy has not shown any signs of cough or any other respiratory involvement. Will you kindly suggest what might be done further toward arriving at the etiology and treatment in this case?

M.D., Washington.

ANSWER.—The strongly positive Mantoux test indicates that the child is allergic to tuberculoprotein, which means that a primary tuberculosis complex is still active somewhere in the body, the most common location being in the lungs and adjacent glands. Only 25 per cent of these lesions are demonstrable roentgenologically. It is not uncommon for the tuberculous infection to spread from the tracheobronchial glands downward in the lymphatics to the mesenteric glands. Vague abdominal pain and fever might be caused by exacerbations in these glands. Unless a flat plate of the abdomen revealed calcification in these glands, clinical diagnosis could only be surmised. A normal sedimentation time of the red cells would practically rule out progressive tuberculous infection. Early Pott's disease of the lower thoracic or upper lumbar vertebrae should be excluded by x-ray examination, as referred pain from this source could cause fever and pain. Diaphragmatic pleuritis on a tuberculous basis could also cause the pain.

Early active rheumatic fever or rheumatic heart disease frequently produces upper abdominal pain. A normal sedimentation time would speak against this, as would a normal electrocardiogram. Ready response of the pain and fever to salicylates would cause suspicion of rheumatic infection.

Peptic ulcers in children do occur and are often missed unless there is skilled x-ray interpretation, as they produce vague epigastric distress.

A Meckel's diverticulum can become ulcerated and inflamed, causing occasional fever and upper abdominal pain. Blood in the stool on a meat free diet is suggestive in this condition.

Small epigastric hernias, while not accounting for the fever, could cause vague epigastric distress and pain.

Study of the stool for parasites and ova might help in the diagnosis. A differential blood count often shows eosinophilia in these conditions.

Repeated urinalysis should be done, as occasionally pyuria will not be obvious in every specimen.

Colitis of various types must be considered, but repeated stool examinations for blood, mucus and pus would aid in this diagnosis.

Vague rarer diseases that cause recurrent fever with abdominal pain are Hodgkin's disease and similar conditions, which could be diagnosed only by biopsy of an enlarged cervical node, if these nodes are enlarged.

One may be dealing with two distinct conditions: (*a*) upper abdominal distress or (*b*) fever from a different cause which accentuates any feeling of distress. The fever might be from recurrent tonsillitis or nasal sinusitis.

If all other tests prove negative but the Mantoux test is positive and there is a rapid sedimentation time of the red cells, one would strongly suspect that tuberculous mesenteric adenitis is the cause of the fever and upper abdominal pain. On the other hand, one must be certain that recurrent upper respiratory infections such as tonsillitis are not the cause of the fever accompanied now by abdominal pain, no matter what the original distress may have been from.

Treatment depends on etiology, but moderate rest, general hygienic treatment, bland diet, sunshine and fresh air would be indicated in any condition.

AMPUTATION STUMP INFECTION WITH BACILLUS PYOCYANEUS

To the Editor:—Following a knee amputation for diabetic arteriosclerotic gangrene of the foot there was an infection of the stump with Staphylococcic aureus (hemolytic) and Bacillus pyocyaneus. The staphylococcic part of the infection has responded to treatment with staphylococcus toxoid and antitoxin. The pyocyaneus infection, however, has responded only slightly to the usual methods of hot compresses and the usual disinfectants such as merthiolate, aluminum acetate, diluted solution of sodium hypochlorite and hexylresorcinol. There is abundant pus with gram-negative rods. There is free drainage of every part of the wound. Can you advise me of any known specific for Bacillus pyocyaneus infections, locally or systemically? If there is no known specific, what method of treatment would you suggest for the infection?

M.D., California.

ANSWER.—As far as is known, there is no specific treatment for Bacillus pyocyaneus infection. A good method of treatment is to scrub the wound thoroughly with soap and water, to expose it to the sunshine, if available, for half an hour and, if any pocket of pus has formed in the stump, to drain it. Disinfectants such as mentioned are of no particular help. Soap and water was found most helpful during the war.

POSSIBLE ANILINE POISONING

To the Editor:—A white man, aged 59, who has worked with aniline dyes for the past thirty-five years, has been getting attacks of colicky pain in the upper part of the abdomen about once a week for the past year. The pains are severe enough to produce shock and require morphine. He has had a chronic cough for the past five years and marked constipation with occasional diarrhea for three years. There is no history of syphilis or lead poisoning. The hemoglobin is 60 per cent (Tallqvist). The urine is dark brown and is negative for blood. No laboratory work has been done. Are these symptoms consistent with a diagnosis of chronic anilinism? Please outline method of procedure and bibliography of clinical articles. The dyes concerned are chrysoidine, methylene blue, metanil yellow, stilbene yellow, nigrosine, basic brown, bismarck brown and auramine.

M.D., New York.

ANSWER.—This query furnishes no information whether the worker concerned was engaged in the manufacture of these dyes or only in their application, such as in a dye house. In either case it is probable that the worker was exposed to large numbers of other chemicals, such as varied intermediates in dye manufacture or various mordants, bleaches and fixing agents such as are used in connection with dyes. On the assumption that the condition has been acquired at work, it is highly probable that no single agent, such as aniline, or any one dye is to be regarded as responsible. Instead, such conditions ordinarily must be attributed to "mixed" intoxication, in which large numbers of substances to which exposures may have been provided during the thirty-five years of employment have contributed some part. While the manifestations mentioned are not inconsistent with the diagnosis of an occupational disease when properly supported by additional laboratory work, it must be recognized that the same type of manifestations in a person aged 59 frequently arise in the entire absence of exposures to chemicals in the course of employment. Before diagnosis of an occupational disease is made, more extensive laboratory work should be carried out, including appropriate gallbladder and gastro-intestinal x-ray examinations and complete blood examination, including tests for methemoglobin. If benzene is employed in the manufacture of dyes, and if the worker is still exposed, urine sulfate tests should be carried out. This test is described in the *Journal of Industrial Hygiene* **18**:349 (June) 1936. Chronic aniline poisoning is quite rare. The following are widely regarded as typical manifestations of

chronic aniline poisoning: anemia, slowing of the pulse, disorders of digestion, such as eructations, loathing of food, vomiting, diarrhea, and eczematous and pustular eruptions on various parts of the body, especially on the scrotum, nervous symptoms, general debility, headache, ringing of the ears, vertigo, unrestful sleep, disturbances of sensibility, often also of motility and spasmodic muscular pain. Anemia and retarded pulse are early symptoms. The blood is of a brownish hue but microscopically unchanged; occasionally the urine contains blood (Kober and Hayhurst). A partial bibliography includes:

Young, A. G.: Toxicological Studies of Aniline and Aniline Compounds, *J. Pharmacol. & Exper. Therap.* **27**: 125 (March) 1926.
Arneth and Albacht: Qualitative Blood Findings in CO, Lysol and Aniline Poisoning, *Zentralbl. f. Gewerbehyg.* **4**: 225 (July) 1927.
Davis, P. A.: Aniline Poisoning in Rubber Industry, *J. Indust. Hyg.* **2**: 57 (June) 1921.
de Castro, A.: Aniline Poisoning in Dye Workers, *Gazz. d. osp.* **41**: 930 (Oct. 26) 1920.
Thompson, W. G.: Chronic Aniline Poisoning, *M. Rec.* **97**: 401 (March 6) 1920.
Newton, C. R.: Industrial Blood Poisons, THE JOURNAL, April 24, 1920, p. 1149.
Hamilton, Alice: Aniline Poisoning, *J. Indust. Hyg.* **1**: 204 (Aug.) 1919.
Baker, V. C.: Aniline Poisoning, *New York M. J.* **106**: 790 (Oct. 27) 1917.
Lintz, William: Aniline Poisoning, THE JOURNAL, March 3, 1917, p. 692.
Luce, R. V., and Hamilton, Alice: Industrial Aniline Poisoning in the United States, THE JOURNAL, May 6, 1916, p. 1441.

CALCAREOUS DEGENERATION OF ARTERIES

To the Editor:—What is the best treatment for senile calcareous degeneration of the external iliac and femoral arteries? I am interested in the graphic method.

C. M. DESVERNINE, M.D., Havana, Cuba.

ANSWER.—There is no specific treatment for calcareous degeneration of the arteries. The treatment of this condition is the same as the treatment of generalized arteriosclerosis, which, as is well known, is unsatisfactory. Roentgenologic evidence of arteriosclerosis of the peripheral arteries is commonly found in instances in which evidence of impairment of the arterial circulation is absent. It is not until thrombosis occurs that the blood transporting function of the arteries is reduced. When there is diminution of circulation to the extremities, treatment becomes complex and can be presented only briefly here.

The chief aim of treatment is the prevention of gangrene, the program for which is the same as has been so well publicized for the prophylactic care of the feet in diabetes. Trauma should be avoided, new shoes should be worn for only short periods until thoroughly broken in, protection from cold is essential, and application of strong solutions containing iodine and phenol and other irritating substances is sharply interdicted. Such preparations, although well tolerated by patients with normal circulation, may lead to ulcers or gangrene in patients with impaired circulation. Trichophyte infections should be treated by the immersion of the feet in solutions of potassium permanganate rather than by application of solutions containing iodine or salicylic acid.

Postural exercises consist of alternate elevation and dependence of the extremities for periods of one minute each for fifteen minutes, two or three times daily. These exercises tend to increase the collateral circulation. Alternate immersion of the extremities in water of approximately 40 and 105 F. for periods of one minute each, for thirty minutes three times daily, seems to help. The extremities may be warmed by exposing them to heat from one or two carbon filament bulbs in cabinets such as are commonly used in the treatment of arthritis. The temperature should not exceed 100 F. Theobromine and mecholin may increase the circulation to the extremities.

The artificial induction of fever by the intramuscular injection of sulfur in oil produces a sharp fever and temporarily increased circulation, which in many instances is valuable. Intermittent suction and pressure (passive vascular exercise) should be carried out for periods of not less than two or three hours daily. The application of diathermy to the thighs increases the circulation and may be of some value in treatment. Recently there have been reports of benefit following intermittent venous obstruction by inflating the cuff of a blood pressure apparatus placed about the thigh to the diastolic pressure for two minutes and then deflating it for two minutes over periods of several hours daily. However, this has been of little or no value in the hands of some physicians.

The use of insulin-free pancreatic extracts or striated muscle extracts may increase the distance a person can walk before the distress of claudication occurs.

When medical treatment does not control the pain when the patient is at rest, section, crushing or injection of the peripheral nerves or intraspinal injection of alcohol may be carried out in selected cases. When gangrenous ulcers are painful, some relief may follow the application of anesthetic agents.

The following references may be of value:

Brown, G. E.: Thrombo-Angiitis Obliterans, *Surg. Gynec. & Obst.* **58**: 297 (Feb. 15) 1934.
Brown, G. E.; Allen, E. V., and Mahorner, H. R.: Thrombo-Angiitis Obliterans: Clinical, Physiologic and Pathologic Studies, Philadelphia, W. B. Saunders Company, 1928, pp. 40-72.
Herrmann, L. G., and Reid, M. R.: *J. Med.* **14**: 524 (Dec.) 1933.
Roth, Grace M.: *Proc. Staff Meet., Mayo Clin.* **9**: 390 (June 27) 1934.
Waller, L. M., and Allen, E. V.: *Ann. Int. Med.* **5**: 478 (Oct.) 1931.
Allen, E. V., and Brown, G. E.: Intermittent Pressure and Suction, THE JOURNAL, Dec. 21, 1935, p. 2029.

EFFECTS OF OXYGEN

To the Editor:—Are there any deleterious effects in a patient or animal placed daily in an oxygen tent for one or two hours over a long period of time? What will it do to the circulatory system, to the nervous system, or to the metabolic functions? Please refer me to some literature which may deal in detail with this topic.

M.D., Massachusetts.

ANSWER.—The effect of confinement in an oxygen tent for several hours daily will depend on the concentrations of oxygen and carbon dioxide and on the atmospheric conditions maintained.

In an oxygen tent the oxygen concentration is usually approximately 50 per cent; the carbon dioxide rarely exceeds 1 per cent in the first two hours, provided the tent is well designed and there is normal metabolism and the usual leakage. These concentrations are well within the margins of safety and have no effect on normal people. Fully saturated hemoglobin cannot accept additional oxygen. The carbon dioxide loss will continue to occur at the normal rate across the interface pulmonary blood alveolar air. Nurses have remained on duty for periods of from three to four hours at a stretch daily in oxygen chambers without detectable change in their condition. Patients who have diminished pulmonary circulation either by reason of cardiac weakness, emphysema or bronchitis may be benefited by a sojourn of several hours a day in tents or chambers. This benefit may be the result of temporary increase in oxygenation of the blood and consequent improvement in circulation. Patients with severe pulmonary disease and oxygen want must be provided with oxygen at an increased partial pressure continuously. Oxygen tents are usually maintained at lower temperature and humidity and with a greater rapidity of air movement across the face than is present outside. This may induce stimulation of the circulation, reduce metabolism and have a soothing effect on the nervous system.

An excellent bibliography on the physiology and therapeutics of oxygen may be obtained from Linde Air Products Company.

The following references are especially significant:

Barcroft, Joseph: The Significance of Hemoglobin, *Physiol. Rev.* **4**: 249 (July) 1924.
Boothby, W. M.: Oxygen Therapy, THE JOURNAL, Dec. 10, 1932, p. 2026, Dec. 17, 1932, p. 2106.
Haldane, J. S.: Respiration, New Haven, Yale University Press, 1922, p. 427.
Meakins, J. C., and Davies, H. W.: Respiratory Function in Disease, London, Oliver and Boyd, 1925.

BANANA OIL OR AMYL ACETATE

To the Editor:—From an industrial standpoint what are the hazards in the use of so-called banana oil? It is used as a solvent in lacquers and often in spray-gun work in coating furniture. Just what is banana oil? Can it produce narcosis when carelessly handled or accidentally spilled in a closed room? What other effects can it have when inhaled? Is banana oil sometimes a mixture with benzene and acetone when used as a solvent in lacquer work?

M.D., Ohio.

ANSWER.—Banana oil is iso-amyl acetate, having the formula $CH_3COOC_5H_{11}$. However, in some industries, common practice attaches the name of banana oil to almost any solvent substance possessing the fruity odor of pears or bananas associated with this substance. It is possible that banana oil, or iso-amyl acetate, may be mixed with benzene or acetone for use in spray coating, but if so the mixture is not properly termed banana oil. In addition to iso-amyl acetate, there are at least two other varieties; namely, normal amyl acetate and secondary amyl acetate. The latter has been investigated by the United States Public Health Service (Patty, F. A.; Yant, W. P., and Schrenk, H. H.: Acute Response of Guinea-Pigs to Vapors of Some New Commercial Organic Compounds: XI. Secondary Amyl Acetate, *Pub. Health Rep.* **51**:811 [June 19] 1936). This secondary amyl acetate in high concentrations produces narcosis terminating in death. Apart from narcosis, irritation of the eyes and nasal mucous membrane are the chief manifestations. Iso-amyl acetate frequently has been investigated and reported on in the literature. The Smyths in the *Journal of Industrial Hygiene* (**10**:261 [Oct.] 1928) included

this substance in a general study of lacquer solvents. They state that amyl acetate is considered as among the safest of the solvents investigated. The consensus of investigators everywhere is that iso-amyl acetate usually causes, in exposed lacquer workers, no greater degree of harm than is reflected by minor irritation of the eyes, the upper respiratory tract, the bronchi or other exposed tissues.

IMPOTENCE AND AZOOSPERMIA

To the Editor:—A single man, aged 32, with impotence and azoospermia, was operated on eight years ago for varicocele of the right cord. Following this operation a complete atrophy of the right testis developed and he has been completely impotent. He is otherwise in good physical health except for mental depression. He states that he has never had venereal infection and that he has never had any swelling of the left epididymis. Examination of the left testis shows no evidence of past or present disease. The prostate showed a 1 plus enlargement with infiltration of the right vesicle, but the left vesicle was not palpable. The expressed secretion showed an average of 50 to 60 leukocytes per high power field and a few lecithin bodies with a great amount of mucus but no spermatozoa or red cells. The prostate was somewhat soft in consistency but not tender. The centrifugated urine showed an average of 15 to 20 leukocytes and an occasional clump of pus cells per high power field. The Wassermann reaction has been negative on repeated examinations. The weight has been stationary for the past few years. The heart and lungs are normal. There is no evidence of spinal cord disease. Cystoscopic examination revealed no abnormalities of the bladder or bladder neck; there were a few granulations in the prostatic urethra and the patient had a rather small verumontanum; the orifices of the ejaculatory ducts appeared normal. There was no stricture of the urethra. The patient is a laborer doing outside work. His blood pressure is 138 systolic, 85 diastolic. I have been massaging the prostate and vesicles and using sounds occasionally with deep instillations of either 10 per cent mild protein silver or 0.5 per cent silver nitrate, and diathermy to the prostate. I have used the anterior lobe of the pituitary in ascending doses up to 80 grains (5 Gm.) a day, anterior pituitary extract and antuitrin-S, and also androstine subcutaneously. The patient showed some improvement under this therapy as manifested by the return of a few living and nonmotile spermatozoa on some occasions in the expressed secretion, also some reduction in the number of pus cells, and an occasional partial erection on awakening. The improvement, however, has been only temporary and the patient has become much discouraged. Please offer any further suggestions that may be of benefit in bringing back his ability to obtain erection and to stimulate the return of spermatozoa. Should the condition be considered hopeless?

M.D., Minnesota.

ANSWER.—The fact that some spermatozoa were found in the expressed fluid indicates that there is no obstruction in any of the genital tubes; in other words, that the azoospermia is testicular in origin. As this patient has but one normal testicle, the treatment must be continued longer than otherwise and the results will be much slower. Tablets of the anterior lobe of the pituitary are generally considered to be devoid of therapeutic effect by mouth. Androstine was reported by the Council on Pharmacy and Chemistry to be practically inactive by biologic test (THE JOURNAL, Jan. 20, 1936, p. 2150). Small doses of thyroid (0.01 Gm.) may be of benefit. In addition, for his impotence, he should receive locally the sinusoidal-faradic current of moderate rapidity and as strong as he can bear without any pain. One cable is connected with a rectal electrode and the other with a wet-sponge electrode applied to the perineum and the current is allowed to pass for about ten minutes. Treatment may be given twice a week.

TEST FOR AMYLOIDOSIS

To the Editor:—What tests may be used to determine the presence of amyloid disease and what is the efficacy of these tests?

VICTOR S. RANDOLPH, M.D., Phoenix, Ariz.

ANSWER.—The only practical clinical test for amyloidosis is the intravenous injection of congo red, first proposed by Bennhold (*Deutsches Arch. f. klin. Med.* **142**:32 [March] 1923). This dye had been used previously for the determination of plasma volume (Keith, N. M., Rowntree, L. G., and Geraghty, J. T.: A Method for the Determination of Plasma and Blood Volume, *Arch. Int. Med.* **16**:547 [Oct.] 1915. Grieshach: *Deutsche med. Wchnschr.* **47**:1289 [Oct. 27] 1921). Since the original description by Bennhold, the reliability of the test has been confirmed by numerous authors (Bookman and Rosenthal, *Am. J. M. Sc.* **173**:396 [March] 1927. Barker, N. W., and Snell A. M.: *J. Lab. & Clin. Med.* **16**:262 [Dec.] 1930. Wallace, J. E.: *Lancet* **1**:391 [Feb. 20] 1932).

The test is performed by the intravenous injection of from 10 to 18 cc. of a 0.75 to 1.5 per cent sterile solution of congo red in distilled water and the withdrawal of blood samples after four minutes and after one hour. Care should be taken to prevent hemolysis. The two serums are compared in the colorimeter with the four minute sample as the standard of 100 per cent. Friedman and Auerbach (*J. Lab. & Clin. Med.* **21**:93 [Oct.] 1935) propose that the serums be mixed with 95 per cent alcohol to precipitate any dissolved hemoglobin in the proportion of 2 cc. of serum to 8 cc. of alcohol. Wallace uses plasma and collects 4.5 cc. of blood in 0.5 cc. of 3.8 per cent sodium citrate solution. He points out that the plasma volume is never constant and that this method permits that factor to be considered.

If more than 60 per cent of the congo red disappears from the blood in one hour, it may be assumed that the patient has amyloidosis. Loss of from 40 to 60 per cent is of doubtful significance. Normal individuals will show up to 30 per cent and more rarely 40 per cent loss.

Most cases of chronic lipoid nephrosis show from 40 to 60 per cent disappearance from the blood, but an examination of the urine will show excretion of the dye in contrast to amyloidosis (Barker and Snell). In diseases of the liver, Bennhold found abnormal retention in the blood but without correlation with the severity of the disease.

The congo red test, when properly performed and judiciously evaluated, is of distinct value in the differential diagnosis of amyloidosis.

CORRECTION OF CICATRICIAL ECTROPION

To the Editor:—Following a fall from a porch a child received an incised wound on her left cheek extending vertically into the left lower eyelid as far as and including the palpebral margin. The wound laid open the facial muscles and the orbicularis oculi in the lid. The wound was sutured with interrupted fine silk and healed by primary intention. About four weeks after the injury a cicatrical ectropion was developing as a result of the contraction of the scar. How soon would it be practical to attempt correction of the ectropion and what operative procedures should be followed? The child is able to close the eye, as the orbicularis is normal.

BENJAMIN BRAUDE, M.D., Chicago.

ANSWER.—Such a contraction will usually follow a vertical scar which involves both the cheek and the lower lid. It may be corrected by making a transverse incision in the part of the lid that is longest transversely, and throwing into this transverse incision a flap taken from the opposite border of the wound or the incision that results from reopening the cheek scar. With proper undermining this can usually be done. The upper end of the secondary incision that frees this flap should bear such a relationship to the level of the transverse incision that the tissues below this transverse incision will hold up the undermined part of the cheek from which the transverse flap is taken.

Another plan that is occasionally necessary is to relieve the contracture by making a transverse incision through it and spreading the defect until the lid is well up in place, and the resulting defect is then covered with a free skin graft. Such a graft is usually of postauricular skin, since this is thin, takes readily, and matches the skin of the face in color.

The operation should be undertaken any time the eye seems to be suffering from lack of contact of the lid with the globe. Otherwise there is no particular hurry, and often the period of contracture is followed by a period of relaxation as the scar becomes older and softer; thus usually with time the amount of correction necessary is less.

DYSMENORRHEA TREATED BY CAUTERIZATION OF GENITAL SPOTS

To the Editor:—A patient, aged 16, has severe attacks of dysmenorrhea. Vomiting occurs during the attack and she is unable to retain any liquids. The only treatment so far has been the administration of capsules each containing aminopyrine 5 grains (0.3 Gm.), extract of hyoscyamus five-sixths grain (0.054 Gm.) and phenobarbital one-half grain (0.03 Gm.) but they fail to prevent the attack. I tried the application of 5 per cent Larocain with only slight improvement in the "genital spots," which I found to be enlarged and red. I did not have 20 per cent cocaine. I should like to attempt cauterizing these "spots" but cannot find in my textbook the exact location of the "tuberculum septi," which with the anterior portion of the inferior turbinates is said to constitute the genital spots. Could you tell me exactly where the tuberculum is? Also how to apply the trichloroacetic acid to the "spots."

M.D., New Jersey.

ANSWER.—The tuberculum septi is a tubercle or prominence on the upper anterior part of the nasal septum. This area and the anterior half of the lower turbinates were called "genital spots" by Fliess. These areas are invariably swollen, more prominent, bleed more readily on slight touch and are exceedingly hyperesthetic preceding and during menstruation (Brettauer, J.: *Surg., Gynec. & Obst.* **17**:381, 1913). According to Koblanck (Die Nase als Reflexorgan, Berlin and Vienna, Urban & Schwarzenberg, 1930) Fliess maintained that the abdominal pain associated with menstruation may be relieved by treating the swellings in the inferior turbinates, and the backaches may be eliminated by reducing the swelling on the septum. The associated gastric symptoms, such as vomiting, disappear after applying medication to the left middle turbinate, and the headaches vanish after electrolysis of the tubercle on the septum.

The application of trichloroacetic acid is somewhat painful; hence 5 per cent cocaine should be applied to the sensitive spots before cauterizing them with trichloroacetic acid. According to Brettauer it is best to cauterize at intervals of from three to seven days during one intermenstrual period. In some cases this may have to be repeated during one or two successive intermenstrual periods. After each treatment a slough forms. This disappears in about five days, so that about four applications of trichloroacetic acid may be made during one intermenstrual period. The relief in many cases is spectacular. According to Emil Mayer (THE JOURNAL, Jan. 3, 1914, p. 6), permanent relief is obtainable by intranasal treatment in from 50 to 75 per cent of the cases.

BACILLUS PROTEUS INFECTIONS OF URINARY BLADDER

To the Editor:—What agents other than Bacillus acidophilus will suppress the growth of Bacillus proteus? To what extent is the bladder tolerant to local acidifying solutions? What acid solutions would you recommend for irrigating the bladder in order to combat B. proteus infection? For a B. proteus infection of the urinary tract would you advise a high starch-low protein or a ketogenic diet? How efficacious is B. proteus vaccine?

M.D., New York.

ANSWER.—Bacillus proteus can be eliminated from the urine by methods that are more efficient than the injection of Bacillus acidophilus. Acidification of the urine by medication will usually cause the urine containing B. proteus to be bacteriostatic, provided the p_H can be reduced to a sufficiently low level. If the p_H of the urine is 7.0 or lower, it will usually not be very difficult to eliminate the organism by this method. However, if the urine is alkaline and the p_H is more than 7.5 or 8, it may be extremely difficult to render it acid by any form of medication. It is usually advisable to give either the ketogenic diet or mandelic acid therapy first and give drugs in addition to insure acidification.

Acidification of the urine is best brought about by administration of ammonium chloride or ammonium nitrate. When these are not tolerated, nitric acid or nitrohydrochloric acid may be used, although the latter is not usually as efficacious as the former. In addition to acidification by means of these drugs, chemotherapy or the ketogenic diet should be used.

The ketogenic diet is unquestionably better than a high starch, low protein diet in the elimination of bacillus proteus. A simpler way of obtaining the same result, however, is available in the oral administration of mandelic acid.

Vaccines made from Bacillus proteus, either stock or autogenous, have not proved to be of much therapeutic value.

Cystoscopic curettage and topical application of 20 per cent silver nitrate to the areas involved may be employed in cases that are resistant to the remedies suggested.

FOX-FORDYCE DISEASE

To the Editor:—A youth, aged 19 years, of Swedish parents, has Fox-Fordyce disease involving the axillae, the areolar border of the nipples and the pubic area. Treatment has consisted of local applications of ammoniated mercury, Lassar's paste, anthralin, sulfur and salicylic acid ointment and Supertah (a proprietary "white" coal tar ointment). No apparent benefit has resulted and the patient was referred to two dermatologists. One made a diagnosis of chronic folliculitis, and the other concurred in my diagnosis of Fox-Fordyce disease. Both recommended x-ray therapy. The patient has had about a dozen applications of x-rays without any appreciable benefit. This condition has persisted now for over six years and has received energetic treatment of many kinds. The urine has been negative on repeated examinations. Have you any suggestions as to treatment?

M.D., Connecticut.

ANSWER.—The occurrence of Fox-Fordyce disease, a rare, chronic, papular disease of the axillae, pubes, breasts and genital and perianal region, is unusual in the male, though not so rarely seen as was thought when the disease was first described. It is connected in some way with the apocrine sweat glands, which occur in all these regions in the female but are supposed to occur in the male only in the axillary, pubic and perianal regions. The occurrence about the nipples in the case described is interesting and exceptional. The failure of treatment to relieve the intense itching is typical. Since x-rays have failed to give relief, phenol diluted with water, alcohol or glycerin may be painted on, or even 95 per cent phenol used on one small area at a time. If this fails, the injection of 95 per cent alcohol may be tried. Under general anesthesia, the hypodermic needle is plunged vertically into the skin to the subcutis layer and 2 or 3 minims of 95 per cent alcohol injected. The next injection should be about one-fourth inch from the first. The whole area is thus treated, injection into blood vessels being avoided. No dressing is needed. It may be necessary to repeat this treatment after some months.

A salt of ethyl aminobenzoate dissolved in almond oil may be used without preliminary anesthesia. The injections are made as described for alcohol and the relief is immediate; but it is usually necessary to repeat the injections every few days to get a lasting effect. The itching is usually relieved for several months. This applies to pruritus ani, for which the method was devised; but the same effect should be obtainable in Fox-Fordyce disease (Andrews, G. C.: Diseases of the Skin, Philadelphia, W. B. Saunders Company, 1930, p. 367).

Excision of the involved areas has been recommended if all other measures fail.

ARTHRITIS SUBSIDING DURING PREGNANCY

To the Editor:—A woman, aged 38, with polyarticular arthritis for the past ten or twelve years, is entirely free from symptoms during pregnancy. She has had nine pregnancies with return of the trouble between the termination of each labor and the next pregnancy. There is a definite aggravation of symptoms during the menstrual period. She is somewhat overweight and has a tachycardia, but physical examination is otherwise essentially negative.

M.D., Illinois.

ANSWER.—This interesting remission of arthritic symptoms during pregnancy has not been noted in the literature of chronic arthritis. Some relationship between the joint symptoms and the amount of estrogen in the blood stream seems possible. The trial of one of the estrogenic substances would be of interest and of possible benefit.

There are reports in the literature of instances of idiopathic intermittent hydrarthrosis in which the joint swelling has receded during pregnancy to return after delivery. Ergotamine tartrate is said to have been of benefit. The cautious trial of this drug is suggested, but prolonged administration of this drug is not advisable, owing to the danger of ergotism.

EFFECT OF INJURY ON PELVIC TUMORS

To the Editor:—If a person has a tumor or mass within the pelvis and receives a blow or is injured by a fall that brings about an acute inflammation of the tissues within that area and pain and soreness of the parts involved, would ultraviolet, short wave or zolite treatments be helpful in reducing the inflammation and other symptoms in such conditions? If there is a tumor, would the injury cause it to increase in size more rapidly than before?

M.D., Nebraska.

ANSWER.—It is rare for a blow or a fall to bring about an acute inflammation of a tumor and the tissue around it. However, when this occurs, the treatment mentioned should prove as helpful for this type of inflammation as for any other. Unless the injury produces hemorrhage or a twist of the tumor with subsequent obstruction of the blood vessels and edema, there will usually be no striking increase in the size of the tumor.

PHENOBARBITAL ADDICTION

To the Editor:—What is a proper dose of phenobarbital as a hypnotic to be used habitually in insomnia? May the desired effect usually be obtained by administering divided doses in the course of the night? How large a dose is likely to produce injurious results, and what are those results?

M.D., California.

ANSWER.—There is no such dose as the "proper dose for the habitual use" of any hypnotic. Such use is decidedly improper, and, no matter what dose is sufficient at first to induce sleep, habituation would require progressive increase in dosage unless the cause of the insomnia has in the meantime been removed. It is generally better to administer an adequate dose, e. g., 0.1 Gm., of phenobarbital at one time than divided doses at intervals. Addiction is fairly readily acquired and when given in excess of from 0.3 to 0.5 Gm. is likely to lead to chronic poisoning with symptoms of confusion, mild dementia, debility, ataxia, gastro-intestinal disturbance and anemia.

REMOVAL OF HAIR ON NIPPLES

To the Editor:—What method of treatment may be followed in removing hair about the nipples in a woman, aged 25?

M.D., Ohio.

ANSWER.—Electrolysis is the only approved method for permanent removal of hair. A platinum needle attached to the negative pole of a galvanic circuit is inserted into the follicle as deeply as the root of the hair and a current of from 1 to 1.25 milliamperes is allowed to pass for from ten to twenty seconds. Then the circuit is broken and the needle removed, and the hair should slip out easily. If the hair is still firmly fixed in the skin, it is probable that the needle did not follow the follicle accurately and the procedure must be repeated. If a second trial fails, this hair had best be left until another time. It is important not to treat hairs less than 0.5 cm. apart, for fear of scarring. After the treatment a small papule forms, but in a few days it subsides and it is then permissible to give another treatment in this area. For fine hairs a smaller current will suffice.

Medical Examinations and Licensure

COMING EXAMINATIONS

STATE AND TERRITORIAL BOARDS

ALABAMA: Montgomery, June 28. Sec., Dr. J. N. Baker, 319 Dexter Ave., Montgomery.

ALASKA: Juneau, March 1. Sec., Dr. W. W. Council, Box 561, Juneau.

COLORADO: Denver, Jan. 5-7. Sec., Dr. Harvey W. Snyder, 831 Republic Bldg., Denver.

CONNECTICUT: *Basic Science:* New Haven, Feb. 12. *Prerequisite to license examination.* Address State Board of Healing Arts, 1895 Yale Station, New Haven. *Medical.* Hartford, March 8-9. *Endorsement.* Hartford, March 22. Sec., Medical Examining Board, Dr. Thomas P. Murdock, 147 W. Main St., Meriden.

DELAWARE: Dover, July 12-14. Sec., Medical Council of Delaware, Dr. Joseph S. McDaniel, 229 S. State St., Dover.

DISTRICT OF COLUMBIA: *Basic Science.* Washington, Dec. 27-28. *Medical.* Washington, Jan. 10-11. Sec., Dr. George C. Ruhland, 203 District Bldg., Washington.

FLORIDA: Jacksonville, June 13-14. Sec., Dr. William M. Rowlett, Box 786, Tampa.

GEORGIA: Atlanta, June. Joint Sec., State Examining Boards, Mr. R. C. Coleman, 111 State Capitol, Atlanta.

IDAHO: Boise, April 5-6. Commissioner of Law Enforcement, Hon. J. L. Balderston, 205 State Capitol Bldg., Boise.

ILLINOIS: Chicago, Jan. 25-27. Superintendent of Registration, Department of Registration and Education, Mr. Homer J. Byrd, Springfield.

INDIANA: Indianapolis, June 21-23. Sec., Board of Medical Registration and Examination, Dr. J. W. Bowers, 301 State House, Indianapolis.

IOWA: *Basic Science:* Des Moines, Jan. 11. Sec., Dr. W. L. Strunk, Decorah.

MAINE: Portland, March 8-9. Sec., Board of Registration of Medicine, Dr. Adam P. Leighton, 192 State Street, Portland.

MASSACHUSETTS: Boston, March 8-10. Sec., Board of Registration in Medicine, Dr. Stephen Rushmore, 413-F State House, Boston.

MINNESOTA: *Basic Science.* Minneapolis, Jan. 4-5. Sec., Dr. J. Charnley McKinley, 126 Millard Hall, University of Minnesota, Minneapolis. *Medical.* Minneapolis, Jan. 18-20. Sec., Dr. Julian F. Du Bois, 350 St. Peter St., St. Paul.

MONTANA: Helena, April 5-6. Sec., Dr. S. A. Cooney, 205 Power Block, Helena.

NEBRASKA: *Basic Science.* Omaha, Jan. 11-12. Dir., Bureau of Examining Boards, Mrs. Clark Perkins, State House, Lincoln.

NEVADA: *Reciprocity.* Carson City, Feb. 7. Sec., Dr. John E. Worden, Capitol Bldg., Carson City.

NEW HAMPSHIRE: Concord, March 10-11. Sec., Board of Registration in Medicine, Dr. Fred E. Clow, State House, Concord.

NEW JERSEY: Trenton, June 21-22. Sec., Dr. James J. McGuire, 28 W. State St., Trenton.

NEW MEXICO: Santa Fe, April 11-12. Sec., Dr. Le Grand Ward, 135 Sena Plaza, Santa Fe.

NEW YORK: Albany, Buffalo, New York, and Syracuse, Jan. 24-27, June 27-30, and Sept. 19-22. Chief, Professional Examinations Bureau, Mr. Herbert J. Hamilton, 315 Education Bldg., Albany.

NORTH DAKOTA: Grand Forks, Jan. 4-7. Sec., Dr. G. M. Williamson, 415 S. 3rd St., Grand Forks.

OREGON: *Medical.* Portland, Jan. 4-6. Sec., Dr. Joseph F. Wood, 509 Selling Bldg., Portland. *Basic Science.* Portland, March 19. Sec., State Board of Higher Education, Mr. Charles D. Byrne, University of Oregon, Eugene.

PENNSYLVANIA: Philadelphia, Jan. 4-8. Sec., Board of Medical Education and Licensure, Dr. James A. Newpher, 400 Education Bldg., Harrisburg.

RHODE ISLAND: Providence, Jan. 6-7. Chief, Division of Examiners, Mr. Robert D. Wholey, 366 State Office Bldg., Providence.

SOUTH DAKOTA: Pierre, Jan. 18-19. Director of Medical Licensure, Dr. B. A. Dyar, Pierre.

VERMONT: Burlington, Feb. 8. Sec., Board of Medical Registration, Dr. W. Scott Nay, Underhill.

WEST VIRGINIA: Huntington, March 21-23. Sec., Public Health Council, Dr. Arthur E. McClue, State Capitol, Charleston.

WISCONSIN: Madison, Jan. 11-14. Sec., Dr. Henry J. Gramling, 2203 S. Layton Blvd., Milwaukee.

WYOMING: Cheyenne, Feb. 7. Sec., Dr. G. M. Anderson, Capitol Bldg., Cheyenne.

NATIONAL BOARD OF MEDICAL EXAMINERS SPECIAL BOARDS

Examinations of the *National Board of Medical Examiners* and *Special Boards* were published in THE JOURNAL, December 18, page 2091.

Wisconsin Reciprocity Report

Dr. Henry J. Gramling, secretary, Wisconsin State Board of Medical Examiners, reports that ten physicians were successful in the oral and practical examination for reciprocity applicants held at Wisconsin Rapids, Oct. 14, 1937. The following schools were represented:

School	PASSED	Year Grad.	Reciprocity with
College of Physicians and Surgeons of Chicago		(1908)	Illinois
Loyola University School of Medicine		(1934), (1935)	Illinois
Northwestern University Medical School		(1934)	New York
Indiana University School of Medicine		(1933)	Indiana
University of Michigan Medical School		(1933)	Michigan
University of Minnesota Medical School		(1921),* (1924)*	Minnesota
University and Bellevue Hospital Medical College			New York
University of Wisconsin Medical School		(1933)	New York

* License has not been issued.

Hawaii July Examination

Dr. James A. Morgan, secretary, Board of Medical Examiners, reports the oral and written examination held at Honolulu, July 12-15, 1937. The examination covered 10 subjects and included 80 questions. An average of 75 per cent was required to pass. Four candidates were examined, three of whom passed and one failed. The following schools were represented:

School	PASSED	Year Grad.	Per Cent
Yale University School of Medicine		(1935)	84.7
Washington University School of Medicine		(1935)	79.6
Licentiate of the Royal College of Physicians of London and Member of the Royal College of Surgeons of England		(1936)	79.2*
School	**FAILED**	**Year Grad.**	**Per Cent**
Creighton University School of Medicine		(1936)	62.8

* Verification of graduation in process.

Iowa June Examination

Mr. H. W. Grefe, director, Division of Licensure and Registration, reports the written examination held by the Iowa State Board of Medical Examiners at Iowa City, June 8-10, 1937. The examination covered 8 subjects and included 100 questions. An average of 75 per cent was required to pass. Eighty-five candidates were examined, all of whom passed. The following schools were represented:

School	PASSED	Year Grad.	Per Cent
George Washington University School of Medicine		(1935)	89.3
Northwestern University Medical School		(1935)	83.3
State University of Iowa College of Medicine		(1937)* 78.8, 79.3, 79.4, 79.5, 79.5, 79.5, 80, 80.3, 80.5, 80.5, 81, 81, 81, 81.3, 81.4, 81.4, 82.3, 82.4, 82.6, 82.9, 83, 83, 83.1, 83.3, 83.5, 83.6, 84.1, 84.1, 84.5, 84.6, 84.8, 84.9, 85.5, 85.6, 85.8, 85.9, 85.9, 86, 86.1, 86.1, 86.1, 86.1, 86.3, 86.3, 86.4, 86.4, 86.4, 86.5, 86.5, 86.8, 86.9, 87, 87.6, 87.8, 87.8, 87.8, 87.9, 87.9, 88, 88.3, 88.5, 88.6, 88.6, 88.8, 88.8, 89, 89.1, 89.3, 89.4, 89.4, 89.6, 89.8, 90.3, 90.3, 90.5, 90.6, 91.3, 92	
Harvard University Medical School		(1934)	90.1
Creighton University School of Medicine		(1936) 81.8, 81.9,*	89.5

Twelve physicians were licensed by reciprocity and one physician was licensed by endorsement from July 12 through October 20. The following schools were represented:

School	LICENSED BY RECIPROCITY	Year Grad.	Reciprocity with
Rush Medical College		(1932) Minnesota, (1934)	S. Dakota
University of Michigan Medical School		(1934)	Michigan
Creighton University School of Medicine		(1931), (1936, 2)	Nebraska
University of Nebraska Col. of Med.		(1934, 3), (1936, 2)	Nebraska
University of Wisconsin Medical School		(1935)	Wisconsin
School	**LICENSED BY ENDORSEMENT**	**Year Grad.**	**Endorsement of**
College of Medical Evangelists		(1937)	N. B. M. Ex.

* Licenses have not been issued.

Rhode Island July Examination

Mr. Robert D. Wholey, chief, Division of Examiners, reports the oral, written and practical examination held by the Board of Examiners in Medicine at Providence, July 1-2, 1937. The examination covered 20 subjects and included 50 questions. An average of 80 per cent was required to pass. Thirteen candidates were examined, 11 of whom passed and two failed. Four physicians were licensed by endorsement. The following schools were represented:

School	PASSED	Year Grad.	Per Cent
University of Colorado School of Medicine		(1933)	86
Georgetown University School of Medicine		(1935)	81
Tufts College Medical School		(1935) 80, (1936) 80, 81,	88
St. Louis University School of Medicine		(1936)	91
Hahnemann Med. College and Hospital of Philadelphia		(1936)	90
Jefferson Medical College of Philadelphia		(1936)	90
University of Vermont College of Medicine		(1936)	87
Regia Università degli Studi di Bologna, Facoltà di Medicina e Chirurgia		(1935)	81*
School	**FAILED**	**Year Grad.**	**Per Cent**
Tufts College Medical School		(1936)	57
Hahnemann Med. College and Hospital of Philadelphia		(1936)	71
School	**LICENSED BY ENDORSEMENT**	**Year Grad.**	**Endorsement of**
Yale University School of Medicine		(1929)	N. B. M. Ex.
Georgetown University School of Medicine		(1935), (1936)	N. B. M. Ex.
Tufts College Medical School		(1932)	N. B. M. Ex.

* Verification of graduation in process.

Book Notices

The Management of Obstetric Difficulties. By Paul Titus, M.D., Obstetrician and Gynecologist to the St. Margaret Memorial Hospital, Pittsburgh. Cloth. Price, $8.50. Pp. 879, with 314 illustrations. St. Louis: C. V. Mosby Company, 1937.

Practically constructed and uncomplicatedly put forth, this volume should prove to be a valuable addition to the library of every physician who does obstetrics. Straightforward in its presentation, there is no great amount of unnecessary detail, the idea of the author being, apparently, to present a practical book for reference. Although the work may be too advanced and lacking in detail to make it valuable as a textbook for undergraduate students, it should make a good reference book for even the student. The book is well written, interesting and easy to read and is profusely illustrated with well done and informative drawings and color plates. Particularly gratifying is the thoroughness of the treatments discussed, both medical and surgical. Rarely does one find this type of book giving detailed treatment, a thing for which the busy practitioner who is seeking information will be thankful. The prescriptions alone should make the book worth owning. For those who are interested in the operative obstetric fields the book is of value because not only does Titus tell one what operation should be done but he goes into some detail in the description of the operative technics. It is difficult to point out particular chapters in the work that merit special attention. The chapter on sterility is excellent in its completeness. Other parts of special note are the chapters on anesthesia and analgesia, the toxemias, cesarean section and the final chapters on intravenous therapy, which is of particular interest and value. The volume by Titus can be highly recommended for addition to the library of any physician who is doing obstetric work.

What is Osteopathy? By Charles Hill, M.A., M.D., D.P.H., Deputy Medical Secretary of the British Medical Association, and H. A. Clegg, M.A., M.B., M.R.C.P., Deputy Editor of the British Medical Journal. With a preface by H. G. Wells. Paper. Price, 7s. 6p. Pp. 212, with 11 illustrations. London: J. M. Dent & Sons, Ltd., 1937.

"Osteopaths are not necromancers, they do not invoke the assistance of the planets to guide their deliberations, they have not invented some elixir of life. They have a theory and a practice, and it is the purpose of this book to examine this theory and practice. It is not our aim to persuade patients not to seek the advice of a practitioner of osteopathy. But if a person wants to be treated by an osteopath he should have some idea of what the osteopath can do for him, as he should have some idea of what the ordinary doctor can do for him. So—What is Osteopathy?"

The answer to this question, based on the proceedings before the Select Committee of the House of Lords appointed to consider the Registration and Regulation of Osteopaths, cannot be read by any one who has ever spent much time at hearings before legislative committees in the United States without being deeply impressed with the vast difference both in spirit and in method between the British lawmaking machinery and our own. The Select Committee, in a considerable number of hearings, devoted sufficient time to the consideration of this measure to allow the presentation of all pertinent evidence. The British Medical Association was represented by counsel, who was permitted to cross examine the witnesses introduced by the proponents of the bill. In our legislative halls, on the contrary, a couple of hours would be allotted for a hearing and, after the cult advocates had overrun their time, the medical profession would be given the remainder, with questioning of witnesses strictly barred.

The evidence presented to the House of Lords committee may be considered under two heads: that dealing with ideas promulgated by Andrew Taylor Still, founder of osteopathy, and that showing how far his modern disciples have departed from his teachings. The cardinal doctrines of Still were the self sufficiency of the body and the unlimited restorative power of nature, the removal by manipulation of mechanical interference with the functions of blood vessels and nerves, the uselessness and harmfulness of all drugs, and the entire independence of osteopathy as a system applicable to, and sufficient for, all diseases. The leading advocates of osteopathy who appeared in support of the bill testified, nevertheless, that they no longer adhere to the principles enunciated by the founder but follow the example of medical practitioners in the use of drugs, serums and surgery. Further it was admitted that no scientific experimental evidence in support of osteopathy had ever been produced. Chapters dealing with osteopathic education in the United States and Britain reveal how far it falls below the standard of schools of medicine. In its report the committee said:

> The Committee find on the evidence before them that the claim of the Osteopaths to treat all diseases as set out in the Bill has not been established, and that it would not be safe or proper for Parliament to recognize osteopathic practitioners as qualified, on a similar footing to that of registered medical practitioners, to diagnose and treat all human complaints.

To all who wish to learn something about osteopathy, this book is commended without reserve.

Research Memorandum on Social Aspects of Relief Policies in the Depression. By R. Clyde White, Professor of Social Economics, School of Social Service Administration, University of Chicago, and Mary K. White, Statistician, Chicago Council of Social Agencies. Prepared under the direction of the Committee on Studies in Social Aspects of the Depression, with the cooperation of the Committee on Social Security. Bulletin 38. Paper. Price, $1. Pp. 173. New York: Social Science Research Council, 1937.

Research Memorandum on Social Work in the Depression. By F. Stuart Chapin, Chairman, Department of Sociology, University of Minnesota, and Stuart A. Queen, Chairman, Department of Sociology and Anthropology, Washington University. Prepared under the direction of the Committee on Studies in Social Aspects of the Depression. Bulletin 39. Paper. Price, $1. Pp. 134. New York: Social Science Research Council, 1937.

The Social Science Research Council, composed of representatives chosen from seven constituent organizations dealing with the social sciences, has fostered a series of "Studies in the Social Aspects of the Depression," of which these two works are a part. They are devoted to suggestions for lines of research in the subjects considered. They raise a multitude of searching questions, most of which the authors admit are easier to ask than to answer. The objective sought is clearly research that will determine just what has happened to social work and been accomplished by it, and what future tendencies are, with their effect on individuals, society and the social workers themselves. The indefiniteness of the whole field is emphasized by the frequently repeated demand for a determination of objectives.

Both works show the sort of "inbreeding" that is characteristic of social workers. The "Research Memorandum on Social Work in the Depression," while discussing medical relief under the FERA, makes almost no reference to the great amount of published material by medical associations or of the part they played in the organization of that work. In the discussion of medical-social workers there is scarcely any reference to the medical profession, hospitals or the public health service. The bibliographies and footnotes, which are an integral part of a work designed for the guidance of research workers, show the same defects; even governmental documents in these special fields are seldom mentioned. There are so many suggestions of practical outlines for research that it seems safe to predict a great increase in the number of master's and doctor's theses that will follow. The research worker will find these works of great value in outlining the technic to be used in the field of social research. This is especially true of the final chapter of the "Research Memorandum on Social Work in the Depression."

Quelques vérités premières (ou soi-disant telles) en chirurgie abdominale. Par H. Mondor, professeur agrégé de pathologie chirurgicale à la Faculté de médecine de Paris. Collection publiée sous la direction de MM. L. Ombrédanne et N. Fiessinger. Boards. Price, 24 francs. Pp. 97. Paris: Masson & Cie, 1937.

Under the editorial supervision of Drs. Louis Ombrédanne and Noël Fiessinger have been or are being published a number of short, concise monographs dealing with surgical or medical specialties. It is somewhat difficult to classify such publications; they are not quiz compends nor are they synopses or syllabi. Perhaps "surgical tabloid" comes nearest the truth. Mondor's opus is replete with aphorisms many of which have stood the test of time, while others may or will have to be changed as new truths become revealed. Ombrédanne himself suggests that

it might have been wiser to entitle the monograph "truths of today." The field covered includes abdominal wall traumas, gastric, duodenal and pancreatic lesions, intestine and peritoneum, and gynecologic surgery. Writing of abdominal wall trauma, one is advised to reexamine the patient every half hour for possible internal lesions. Abdominal rigidity is considered pathognomonic of a lesion of the hollow viscera. To give morphine to a patient with a lesion of the abdominal wall of unknown severity is clumsily to mask symptoms which are anxious to unfold themselves. In the presence of gastric cancer with metastases, one should always perform a gastro-enterostomy; it may palliate for a long time. In cases of chronic pancreatitis with enlargement and hardening of the head of the pancreas, drainage of the common duct is advocated. In milder cases (formes frustes), cholecystostomy and prolonged drainage are preferred. In rectal cancer the surgeon is only too often consulted two years after the onset of symptoms, one year after the first consultation. Rectal examinations should be made more frequently. Three laboratory tests, added to a pelvic examination, should confirm the presence of an ectopic gestation; namely, the Aschheim-Zondek reaction, which is of prime importance, and red and white blood counts. Pelviperitonitis, when not puerperal or postabortive, is almost always due to the gonococcus. Examination of the vulvovaginal secretions should confirm the diagnosis. Surgical intervention in such cases is a grave error. In acute peritonitis one is justified in making use of the x-rays in order to diagnose a possible pneumoperitoneum, provided too much valuable time is not spent in so doing. If x-ray examination is negative but the clinical signs point to perforation, one should operate at once.

These are only a few of the trite statements to be found throughout the monograph. As a refresher, it should prove of value to the average surgeon; it is too dogmatic for students preparing their examinations. As a compendium of generally accepted facts, there is little to criticize and much to commend.

Surveys of American Higher Education. By Walter Crosby Eells, Professor of Education, Stanford University. Paper. Pp. 538, with 11 illustrations. New York City: Carnegie Foundation for the Advancement of Teaching, 1937.

Under the sponsorship of the Carnegie Foundation, Professor Eells of Stanford has made a critical study of the records of surveys in the field of higher education in the United States. Beginning with the Oberlin study in 1908, more than 500 such surveys were identified. Printed and published reports to the number of 230 constitute, however, the primary basis of Professor Eells's analysis. Particular attention has been paid to the technic of educational surveys and to the methods of presenting the data obtained. An interesting chapter has been devoted to an attempt to appraise the results of surveys as seen by the institutions affected and others. Thirty, regarded as outstanding, have been subjected to detailed analysis. The appendixes contain a wealth of material on such subjects as surveying agencies, costs and financing of surveys, bibliography, and opinions concerning future trends in higher educational surveying. Like the war to end war, this survey of surveys is not final. On the one hand, some significant material has been omitted, and, on the other, new plans and procedures have been developed since Professor Eells collected his material.

Diseases of the Nervous System in Infancy, Childhood and Adolescence. By Frank R. Ford, M.D., Associate Professor of Neurology, the Johns Hopkins University. Cloth. Price, $8.50. Pp. 953, with 107 illustrations. Springfield, Illinois, & Baltimore: Charles C. Thomas, 1937.

This book is a timely contribution to the field of neurology in infancy and childhood. Besides the subjects of strictly neurologic interest the author has included neurologic complications of general diseases, so that it is encyclopedic in scope. In the first part the examination of the nervous system and clinical aspects of the anatomy and physiology of the nervous system are concisely handled. Only essential data are presented and at the end of each discussion is a well selected bibliographic reference by which the reader may extend his interest. Most of the references given are those which are written in English. The succeeding chapters deal with neurologic disturbances classified on the basis of etiology and presented in a manner that stresses the clinical features of the disorders. These embrace such subjects as prenatal diseases of the nervous system, heredofamilial and degenerative diseases of the nervous system, infections and parasitic invasions of the nervous system, toxic and metabolic disorders involving the nervous system, vascular and circulatory disorders, neoplasms, injuries by physical agents, the epilepsies and paroxysmal disorders of the nervous system, diseases of the autonomic system, myopathies, and finally a discussion of syndromes and symptom groups. In spite of this scope the author does not present anything that is not useful and essential. The material is well organized and carefully edited. It is adequately illustrated and the written material is presented in a readable style. A vast amount of data is handled scholarly in one textbook that ordinarily would be found in several volumes. The book should appeal to the general practitioner as well as to the pediatrician and neurologist. Every medical library should have a copy, as it will serve as a valuable reference work on the subject of pediatric neurology.

A Textbook of the Practice of Medicine. By Various Authors. Edited by Frederick W. Price, M.D., C.M., F.R.C.P., Consulting Physician to the Royal Northern Hospital, London. Fifth edition. Cloth. Price, $12.50. Pp. 2,038, with 112 illustrations. New York & London: Oxford University Press, 1937.

The first edition of this textbook appeared in 1922 and each edition since has had from one to four additional impressions. The contributors are well chosen and not so numerous as usual in American books of the same cooperative type. This fact adds, perhaps, to the evenness of presentation. There have been some alterations in classification which demonstrate the change in our views of certain diseases. Thus herpes zoster has been transferred from the diseases of the skin to the subsection on diseases due to filtrable viruses; hysteria and neurasthenia have been withdrawn from the section on the nervous system and placed in that on psychologic medicine. In the index, which is exceptionally good (153 pages for 1,883 pages of text) reference to prontosil for streptococcic infections is found, while on the page referred to prontosil is not mentioned but there is a brief reference to "sulphon amide." It might be pointed out that many of the electrocardiograms could be improved on so far as reproduction is concerned. It is noted also that under treatment of gonococcic arthritis no mention is made of hyperpyrexia, which, at least up to the time of sulfanilamide, was the most promising form of therapy. Too much criticism of this book, however, would be invidious, since it is well written, exceptionally complete, and easily used as either a textbook or a reference book.

The Spectacle of a Man. By John Coignard. Cloth. Price, $2.50. Pp. 252. New York: Jefferson House (William Morrow & Co., Inc.), 1937.

This is a novel about a man whose excessive, pathologic shyness, increased by stuttering and stammering since childhood, made it impossible for him to establish any satisfactory relationships with men and women, resulting in almost complete withdrawal from normal social intercourse and a sense of great inferiority and unhappiness. The author shows how, through psychoanalytic therapy, the patient is freed from the tyrannical domination of his unconscious infantile emotions and cravings and in consequence is able to live a freer and fuller affective life. In working out the psychodynamics, the edipus situation in its simplest and most classic form is utilized. Only a relatively small part of the book occupies itself with the actual analysis. By far the largest portion is devoted to a description of the patient's actual life during the analytic months. Writing for the intelligent lay reader, the author has wisely refrained from the use of technical terminology and involved psychologic interpretations. In simple language, without resorting to sensational and melodramatic situations, he works out the psychodynamics in a sufficiently valid and convincing manner. He does not pretend to describe an orthodox or scientifically correct analysis and almost entirely neglects, except for brief references, the transference situation. These technical deviations, including the use of a diary during analysis, in no way detract from the value of the book, the purpose of which is manifestly to give a nonclinical description of a neurosis and its treatment, in novel form, for the lay reader. Many passages, devoted to intellectual psychologizing, are somewhat dull and slow and could probably be condensed.

Disease and the Man. By Roger F. Lapham, A.B., M.D. Cloth. Price, $2. Pp. 143. New York: Oxford University Press, 1937.

We are accustomed to hearing the older generation of physicians lament the passing of the "art" of medicine and deplore the increasing dependence on indirect methods of examination with consequent failure to cultivate the senses by painstaking direct examination. Too often, we have been told, anamnesis is supplanted by a laboratory report. In the book under review a similar thesis is challengingly presented by one of our younger physicians, who has completed comparatively recently his medical course and hospital training. Dr. Lapham so forcefully presents the paramount importance of the patient and of the personal relationship of the doctor that his title might well have been transposed: "The Man and the Disease." In an early chapter the spirit of the true physician is accurately portrayed. History taking and the physical examination are vividly described with illustrative cases to demonstrate their significance. Suggestions for the follow up and for controlling patients are similarly reinforced and enlivened by circumstantial anecdotes drawn from his own experience. Two illuminating chapters deal with that ever present problem the neurotic patient. Dr. Lapham concludes with the statement ". . . it is the sincere hope of the author that a consideration of this discourse may help us to recognize the practice of medicine as a problem which embraces infinitely more than just a cold science of treating disease." No recent work so deftly discloses the man who must be treated rather than abstract pathology.

Quelques vérités premières (ou soi-disant telles) en oto-rhino-laryngologie. Par Marcel Ombrédanne, oto-rhino-laryngologiste des hôpitaux de Paris. Collection publiée sous la direction de MM. L. Ombrédanne et N. Flessinger. Boards. Price, 24 francs. Pp. 86. Paris: Masson & Cie, 1937.

In his preface the author states that, while there are many disputable conceptions regarding theories of pathogenesis, some clinical facts and some therapeutic results seem to be definitely settled. In this little brochure Ombrédanne considers important points relative to the nose, nasal sinuses, larynx, trachea, esophagus and ear as well as the various methods of examination, such as bronchoscopy, covering them in the course of eight chapters. The discussions under various headings and subheadings are in the nature of short statements resembling aphorisms. Attention is called to only the most important facts, and many epigrammatic statements refer to various essential facts, such as the warning with regard to the danger of infection at the entrance of the nose or upper lip and the possibility of extension by way of septic thrombophlebitis to the interior of the cranium and the consequent septicemia and death. The author warns against manipulation of the furuncle which is the primary lesion. This little book is valuable to the otolaryngologist but one must remember that oversimplification is not suitable for those who have not already thoroughly mastered the principles of the specialty and have had a reasonable degree of practical experience. This brochure is written and the subject is presented in the clear, concise manner so characteristic of good French writers. It will well repay the practicing otolaryngologist and especially the teacher of the subject to refer frequently to this work.

Accepted Dental Remedies Containing a List of Official Drugs Selected to Promote a Rational Dental Materia Medica and Descriptions of Acceptable Nonofficial Articles, 1937. Edited by Samuel M. Gordon, Ph.D., Secretary, Council on Dental Therapeutics. Cloth. Price, $1. Pp. 265. Chicago: American Dental Association, 1937.

This is the first revision published in two years of the list of pharmaceutical articles that have been accepted by the Council on Dental Therapeutics. The list has been thoroughly revised and the information on the official drugs brought in line with the recently published eleventh edition of the U. S. Pharmacopeia and the sixth edition of the National Formulary. The 1937 edition reflects the position of the Council on Dental Therapeutics on the abrasiveness of dentifrices and gives for each dentifrice listed as acceptable, statement of its composition and of the source and kind of insoluble materials in it and of the abrasiveness of the finished dentifrice. Special mention is made of the revisions of the chapters on calcium compounds, epinephrine, cod liver oil, opium derivatives, local anesthetics and atropine preparations. The plan of this book follows the plan of two publications of the Council on Pharmacy and Chemistry of the American Medical Association—Useful Drugs and New and Nonofficial Remedies—and credit is given to the Council on Pharmacy and Chemistry for material from its publications which have been adapted in this book to the needs of dentists.

A Textbook of Surgical Nursing. By Henry S. Brookes, Jr., M.D., Instructor in Clinical Surgery, Washington University School of Medicine, St. Louis. Cloth. Price, $3.50. Pp. 636, with 233 illustrations. St. Louis: C. V. Mosby Company, 1937.

If it were not for the three chapters pertaining to the duties of the operating room nurses, the various surgical procedures nurses should know and the diets for surgical patients, the remaining twenty-eight chapters might well be called an abbreviated textbook of surgery. This purpose the book fulfils with unusual completeness. It covers general and special surgery briefly but accurately, including the genito-urinary system and gynecologic surgery as well as the surgery of bones and joints. The book is well written in a clear, simple style. It is excellently and abundantly illustrated. With a change of title to Textbook of Surgery for Nurses, it may well be recommended for the purpose intended.

Diabète et chirurgie. Par H. Chabanier et C. Lobo-Onell. Avec la collaboration de Mlle. E. Lelu. Préface du Dr. M. Robineau. Paper. Price, 22 francs. Pp. 168. Paris: Masson & Cie, 1936.

This is probably the most extensive clinical and laboratory treatise dealing with all the medical phases that come up in the control of a diabetic state before, after and during surgery. The underlying theme of the treatment is saline solution from 10 to 20 Gm., insulin and dextrose intravenously. The point in which this differs from the American publications is the stress which the authors lay on the administration of salt in hypertonic solutions. Their experiments as well as their clinical data sound convincing. The authors cover the world literature and the book is well worth while for those who have to deal with surgery and diabetes. The author has paid close attention to detail, which is the criterion of his successful therapy.

Textbook of General Physiology. By T. Cuniffe Barnes, D.Sc., Assistant Professor of Biology, Yale University. Cloth. Price, $4.50. Pp. 554, with 166 illustrations. Philadelphia: P. Blakiston's Son & Co., Inc., 1937.

Barnes has given a new and fresh point of view in general physiology. Since the publication of Bayliss's Principles of General Physiology, this is the first book in English to give a significantly improved approach. The author himself is a prolific contributor to the field of general physiology, especially in the fundamental problems of water metabolism, and his chapters on physical chemistry applied to physiology are especially valuable. Of 477 pages, 267 are devoted to such topics. There has not been a more intelligent or more comprehensive biologic treatment of these questions in any language. There is a large and valuable bibliography, and the book is well indexed. The illustrations are ingenious and many, particularly the diagrammatic ones, are original.

Unreife und Lebensschwäche. Von Prof. Dr. Albrecht Peiper. Boards. Price, 6.80 marks. Pp. 103, with 10 illustrations. Leipzig: Georg Thieme, 1937.

This monograph concerns itself with the physiologic and clinical aspects of prematurity and immaturity. The author believes that the conventional boundary of maturity, 2,500 Gm. birth weight, is too high and should be 2,000 Gm. He then discusses the incidence of and basis for prematurity and immaturity. Growth, body chemistry and metabolism are next discussed and differences between the mature infant are discussed. Then follow concise discussions on hormones, ferments, nutrition, circulation and respiration. Clinical disorders associated with prematurity and immaturity are then discussed. The concluding discussion concerns itself with the management and care of the premature. The monograph is concise but covers the subject comprehensively. Few original data are found in the work, but the author handles his material well. The bibliography is extensive but is confined almost entirely to European literature. The book has merit as a terse but comprehensive summary of physiologic and clinical aspects of prematurity and immaturity.

Bureau of Legal Medicine and Legislation

MEDICOLEGAL ABSTRACTS

Workmen's Compensation Acts: Death from Malignant Endocarditis in Relation to Industrial Injury.—In the course of his employment on March 9, the workman fell down a stairway, apparently hitting his right hip. Two or three hours later he was forced to quit work. The day after the accident his attending physician found him suffering pain in the pelvic region. After remaining at home for five days, the workman returned to work a few days but eventually had to cease his employment altogether. The attending physician was called again May 9 and found the patient suffering from "terrific chills and fever," and subsequently a diagnosis of "generalized septicemia undoubtedly from a heart lesion" was made. The workman was hospitalized and given five or six transfusions. He died June 30 from "malignant endocarditis with generalized septicemia." The workman's compensation commission of Utah denied his widow compensation and she appealed to the Supreme Court of Utah.

The attending physician first testified that he could see no connection between the accident and the death. Later on, however, he testified that "we know he had septicemia and we know he had a very pronounced mitral insufficiency," that a fall could have "jarred loose some of the bacteria on the heart valves and thrown them loose in the blood stream," and that the industrial accident could have therefore been a contributing factor in the death. If the workman had not had a fall, this witness testified, he would not have died at the time he did. The testimony in this case, said the Supreme Court, certainly would have supported an award in favor of the widow; in fact, it seemed to show rather decidedly that the fall aggravated a preexisting condition. Yet it was for the industrial commission to decide the relationship between the accident and the death. There was only one physician who testified and he gave conflicting opinions. He thus evidenced uncertainty as to the real cause of death. Under such circumstances, in the opinion of the court, the finding of the commission was not arbitrary. The order of the commission denying compensation was affirmed. —*Holbrook v. Industrial Commission (Utah), 67 P. (2d) 224.*

Right of a Physician to Refuse to Testify Unless Paid a Special Fee.—One Lillian Taves sued the Safeway Cab Transport & Storage Company to recover damages for personal injuries. Prior to the trial, at the instance and request of the company, Dr. Opie W. Swope, a physician specializing in radiology, took some roentgenograms of her injured arm. On the morning of the day of trial, the husband of the injured woman called on Dr. Swope for the purpose of getting him to testify for his wife. Dr. Swope agreed to do so on condition that his appearance as a witness would be satisfactory to the company that had employed him to take the roentgenograms and on condition that he be paid the customary expert witness fee of $25, to be paid when he arrived at the courtroom. Apparently the stipulation with respect to the fee was agreed to. In any event Dr. Swope appeared at the trial in answer to a subpena duces tecum, bringing the roentgenograms with him. The special fee, however, was not paid and Dr. Swope refused to testfy. The court directed him to take the witness stand, which he did under protest. He was asked to produce the roentgenograms and he refused. He likewise refused to testify unless his special fee was paid. The court thereupon found him guilty of contempt of court, fined him, and ordered him committed to jail until the fine was paid. Dr. Swope instituted proceedings for a writ of habeas corpus, and when his application for the writ was denied, he appealed to the Supreme Court of Kansas.

The question, said the Supreme Court, whether an expert witness may be compelled to testify if special compensation has not been paid him has been considered in many cases. In some of the states there are statutory provisions which permit the trial court to fix such compensation. There is no such statute in Kansas. The general rule as to compelling an expert witness to testify is stated in 70 C. J. 75, as follows:

> The more general rule is that, apart from statute, an expert witness may be compelled to testify as to matters of a professional opinion, or matters to which he has gained a special knowledge by reason of his professional training or experience, without any compensation other than the fee of an ordinary witness, and his refusal to testify unless paid an extra compensation may be punished as contempt.

The present case, the court said, does not present a situation where the witness, at the suggestion of the party calling him, did anything by way of preparation to testify, neither does it present any situation where there was any attempt to compel him by any order of the court to prepare himself to testify. The professional services of the witness were rendered at the request and cost of a person other than the one calling him to testify. It was contended that Dr. Swope refused to produce the roentgenograms which the subpena had compelled him to bring because he anticipated that he would be asked to express his professional opinion based on them. Assuming that to be true, the court said, Dr. Swope was not warranted in refusing to produce the roentgenograms, nor would he have been warranted in refusing to answer questions based thereon.

There are experts of many kinds, professional as well as lay. Many men are experts in certain lines of endeavor. If physicians, dentists, lawyers and engineers may refuse to testify concerning matters on which they may have opinions due to their respective trainings, simply because special fees have not been paid them, then a person qualifying as an expert shoe repairer may not be compelled to state what was the matter with shoes he repaired unless a special fee is paid him. It can readily be seen, the court said, that such a situation would be intolerable. It would tend to permit those who could afford it to produce witnesses whose testimony might be said to be expert and would prevent those without requisite means of the benefit of such testimony. We are not referring, the court said, to that class of cases where special preparation is required as a condition precedent to testifying but to those where the witness is interrogated as to facts and opinions which he knows and has without such special preparation. In the absence of a statute authorizing the trial court to fix expert witness fees, or permitting the witness to refuse to testify until a stipulated fee has been paid, the court was not disposed to hold that a witness claiming to be an expert called on to give expert testimony may refuse to testify unless his demands have been met.

The court concluded, therefore, that the witness was not justified in his refusal to produce the roentgenograms and to testify and the judgment of the trial court denying the application for a writ of habeas corpus was affirmed.—*Swope v. State (Kan.), 67 P. (2d) 416.*

Society Proceedings

COMING MEETINGS

Annual Congress on Medical Education and Licensure, Chicago, Feb. 14-15. Dr. W. D. Cutter, 535 North Dearborn St., Chicago, Secretary.

American Academy of Orthopedic Surgeons, Los Angeles, Jan. 16-20. Dr. Carl E. Badgley, 1313 East Ann St., Ann Arbor, Mich., Secretary.

American Student Health Association, Chicago, Dec. 30-31. Miss Ruth E. Boynton, University of Minnesota Medical School, Minneapolis, Secretary.

Eastern Section, American Laryngological, Rhinological and Otological Society, Philadelphia, Jan. 7. Dr. Louis H. Clerf, 1530 Locust St., Philadelphia, Chairman.

Middle Section, American Laryngological, Rhinological and Otological Society, St. Louis, Jan. 26. Dr. James B. Costen, Beaumont Bldg., St. Louis, Chairman.

Society of American Bacteriologists, Washington, D. C., Dec. 28-30. Dr. I. L. Baldwin, College of Agriculture, University of Wisconsin, Madison, Wis., Secretary.

Southern Section, American Laryngological, Rhinological and Otological Society, Atlanta, Ga., Jan. 24. Dr. Murdock S. Equen, 144 Ponce de Leon Ave. N.E., Atlanta, Ga., Chairman.

Western Section, American Laryngological, Rhinological and Otological Society, Santa Barbara, Calif., Jan. 29-30. Dr. Arthur C. Jones, Eastman Bldg., Boise, Idaho, Chairman.

Current Medical Literature

AMERICAN

The Association library lends periodicals to Fellows of the Association and to individual subscribers in continental United States and Canada for a period of three days. Periodicals are available from 1927 to date. Requests for issues of earlier date cannot be filled. Requests should be accompanied by stamps to cover postage (6 cents if one and 12 cents if two periodicals are requested). Periodicals published by the American Medical Association are not available for lending but may be supplied on purchase order. Reprints as a rule are the property of authors and can be obtained for permanent possession only from them.

Titles marked with an asterisk (*) are abstracted below.

American Journal of Anatomy, Philadelphia

62: 1-178 (Nov.) 1937

Microscopic Studies of Living Thyroid Follicles Implanted in Transparent Chambers Installed in Rabbit's Ear. R. G. Williams, Philadelphia.—p. 1.

Cellular Components of Mammalian Islets of Langerhans. T. B. Thomas, Exeter, N. H.—p. 31.

Observations on Isolated Lymphatic Capillaries in Living Mammal. E. R. Clark and Eleanor Linton Clark, Philadelphia.—p. 59.

Summary of Data for Effects of Ovariectomy on Body Growth and Organ Weights of Young Albino Rat. C. B. Freudenberger and E. I. Hashimoto, Salt Lake City.—p. 93.

Nasal Mucosa and Subarachnoid Space. W. M. Faber, Madison, Wis.—p. 121.

Developmental Transformations of Aortic Arches in Calf (Bos Taurus), with Especial Reference to Formation of Arch of Aorta. W. S. Hammond, Ithaca, N. Y.—p. 149.

American Journal of Cancer, New York

31: 183-358 (Oct.) 1937

Sarcoma of the Breast. S. Sailer, New York.—p. 183.

Carcino-Osteogenic Sarcoma: Malignant Mixed Tumor of Chest Wall: Report of Case. J. W. Budd and F. J. Breslin, Los Angeles.—p. 207.

Diffuse Neurofibromatosis Involving Cranial, Peripheral and Sympathetic Nerves, Accompanied by Tumor of Hypothalamus: Case. E. E. Aegerter and L. W. Smith, Philadelphia.—p. 212.

*Correlation Between Serum Phosphatase and Roentgenographic Type in Bone Disease. Helen Quincy Woodard and N. L. Higinbotham, New York.—p. 221.

Life Expectancy and Incidence of Malignant Disease: II. Carcinoma of Lip, Oral Cavity, Larynx and Antrum. C. E. Welch and I. T. Nathanson, Boston.—p. 238.

Origin of Certain Hereditary Tumors in Drosophila. Mary B. Stark, New York.—p. 253.

Relation Between Nuclear Division and Ammonia Metabolism of Growing Tissues. J. Litter, Beula B. Marble and W. T. Salter, Boston.—p. 268.

Transmission of Leukemia of Mice with Single Cell. J. Furth and M. C. Kahn, with assistance of C. Breedis, New York.—p. 276.

Significance of Ascorbic Acid (Vitamin C) for the Growth in Vitro of Crocker Mouse Sarcoma 180. J. P. M. Vogelaar and Eleanor Erlichman, New York.—p. 283.

Primary Myxosarcoma of Liver. N. Evans and H. J. Hoxie, Los Angeles.—p. 290.

Incidence of Malignant Neoplasms in Unselected Autopsy Material from Haiti. C. V. Welker, Ann Arbor, Mich.—p. 295.

Serum Phosphatase in Bone Disease.—Woodard and Higinbotham determined the serum phosphatase by the Bodansky method in 203 persons with normal, benign and malignant conditions of the bone. Their estimations appear to warrant the following conclusions: 1. If a high serum phosphatase is found associated with an osteoplastic lesion or a normal serum phosphatase with an osteolytic lesion, the phosphatase determination has served only to confirm the diagnosis made by roentgenogram. 2. If a normal serum phosphatase is found associated with an osteoplastic lesion, the process is probably slow growing and relatively benign. 3. If a high serum phosphatase is found associated with an osteolytic lesion, the case may be one of hyperparathyroidism, there may be osteoplastic disease elsewhere in the body, the case may be one of a group made up chiefly of endotheliomas or carcinomas of diverse origin, metastatic to bone, which raise the serum phosphatase level, but for some unknown reason do not form new bone, or the case may be an early highly malignant osteogenic sarcoma. 4. Follow-up determinations of the serum phosphatase in cases with an initially elevated phosphatase may predict the development of metastases after the extirpation of the primary tumor but cannot be depended on to do so. 5. Determinations of serum phosphatase in cases of bone tumors which have been treated by roentgen or gamma rays are useful in indicating the degree and permanence of the inactivation caused by irradiation. 6. While the presence of a normal serum phosphatase gives no assurance that disease of the bone is absent, the presence of a persistently elevated serum phosphatase in a patient who is not jaundiced and who is not under treatment with Coley's toxins is a strong indication that disease of the bone is present and should never be disregarded.

American J. Digest. Dis. & Nutrition, Fort Wayne, Ind.

4: 545-630 (Nov.) 1937

Adrenal Cortex and Intestinal Absorption. F. Verzar, Basel, Switzerland.—p. 545.

The Physiologic Control of Gastric Acidity. C. M. Wilhelmj, R. W. Finegan and F. C. Hill, Omaha.—p. 547.

Anoxemia Used as a Means of Analyzing the Structure and Functions of the Nervous System of the Bowel. W. C. Alvarez, Rochester, Minn.—p. 550.

Studies on Gastric Hunger Mechanism: II. Inhibitory Effect of Dextrose Solutions. I. A. Manville and W. R. Munroe, Portland, Ore.—p. 561.

Peptic Ulcer Therapy. M. B. Levin, Baltimore.—p. 574.

The Cholesterol Problem. H. W. Soper, St. Louis.—p. 577.

*Hypoglycemia: Study of 404 Patients Who Had No Insulin and Had This Common Finding. L. Martin and G. Hellmuth, with assistance of M. L. Muth, Baltimore.—p. 579.

The Relation of the Hydrogen Ion Concentration of Bile to Formation of Gallstones. R. E. Dolkart, K. K. Jones and C. F. G. Brown, Chicago.—p. 587.

Is Uremia an Allergic Manifestation? S. K. Robinson, Chicago.—p. 591.

Observations on Nature of Heartburn. A. M. Baley, Brooklyn.—p. 600.

Hypoglycemia.—Martin and Hellmuth reviewed the available histories of patients in the Johns Hopkins Hospital in whom hypoglycemia was discovered. The blood sugar in 341 patients, uninfluenced by injection of insulin, was found at some time to be below 70 mg. per hundred cubic centimeters; also in sixty-three patients the blood sugar was in the seventies. Hypoglycemia has been found to be associated with a large number of pathologic conditions. In these conditions symptoms pathognomonic of hypoglycemia were found in 8.9 per cent of the cases and suggestive symptoms were present in 20 per cent. In patients with symptomatic functional hypoglycemia, symptoms may appear at a higher level of blood sugar than in patients with a recognizable basis for their hypoglycemia. Except for the cases of symptomatic functional hypoglycemia and of epilepsy there are relatively few other instances in which patients with definite symptoms of hypoglycemia had no recognizable basis for their hypoglycemia. A number of laboratory and clinical data could not be correlated with hypoglycemia. There are individuals with symptoms of hypoglycemia of unexplained etiology whose diagnosis should be "symptomatic functional hypoglycemia." Many individuals become accustomed to or do not react to a lowered blood sugar that would produce symptoms in others, as in hypoglycemia arising from an organic basis. A lowered blood sugar concentration should not be accepted as a cause of that vague symptom complex which is especially typified by the psychoneurotic individual.

American Review of Tuberculosis, New York

36: 577-710 (Nov.) 1937

Evolution of Dispensary Control of Tuberculosis: Historical Aspects. J. H. Elliott, Toronto.—p. 577.

Clinic Standards and Clinic Practice. H. R. Edwards, New York.—p. 592.

Tuberculosis Case Finding in a Consultation Chest Service for Private Physicians. I. Steinberg and Margaret W. Barnard, New York.—p. 602.

The Public Health Aspect of Tuberculosis Sanatorium. C. Bush, Livermore, Calif.—p. 613.

Practice in Tuberculosis Clinics in the United States: Analysis of Data Obtained by Questionnaire in Survey of Tuberculosis Clinics. M. Nelson, New York.—p. 619.

Virulence of Bovine Tubercle Bacilli: Variations Depending on the *pn* of Culture Medium. K. C. Smithburn, New York.—p. 637.

Histopathology of Experimental Tuberculosis: Lesions Induced by Bovine Tubercle Bacilli of Varying Degrees of Virulence. K. C. Smithburn, New York.—p. 659.

Hematologic Studies in Experimental Tuberculosis: Variations in Blood Cells of Rabbits Inoculated with Cultures Differing in Virulence. K. C. Smithburn, F. R. Sabin and L. E. Hummel, New York.—p. 673.

*Histopathologic Basis for X-Ray Diagnosability of Pulmonary Miliary Tuberculosis. P. E. Steiner, Chicago.—p. 692.

Noncaseating Tuberculosis: Preliminary Report. M. Pinner, Oneonta, N. Y.—p. 706.

X-Ray Diagnosability of Miliary Tuberculosis.—Steiner made a study of the correlation between the histologic structure of miliary tubercles and their x-ray diagnosability during life and compared the importance of the histologic make-up with the factors of the size and the number of tubercles in producing shadows. An effort was made to keep the study as objective as possible by using actual measurements

and by submitting data to statistical analysis whenever possible. Fifteen cases of generalized miliary tuberculosis examined post mortem by various members of the department of pathology of the University of Chicago and thirty-one cases examined by pathologists at the Children's Memorial Hospital of Chicago were studied. A comparison of the roentgenograms with the number, the average size and the histologic structure of the tubercles in the lungs revealed the latter factor to show the best correlation with the x-ray appearance. The antemortem roentgenograms were negative in all cases in which the tubercles were epithelioid, whereas, in cases with tubercles containing caseous material or collagen or both, the roentgenograms were usually positive. The chemical explanation for this observation is not known. None of the tubercles contained visible calcium on the routine stains, and micro-incineration of tubercles of the various histologic types revealed no significant quantitative difference in the ash. By using softer x-rays or by selective filtration of x-rays of certain wavelengths, epithelioid tubercles might produce positive roentgenograms.

Archives of Internal Medicine, Chicago

60: 733-948 (Nov.) 1937

Pneumonia Due to Bacillus Friedländeri: Report on Forty-One Patients, with Consideration of Specific Serum Therapy. J. G. M. Bullowa, J. Chess and N. B. Friedman, New York.—p. 735.
Hyperinsulinism: Final Report of Case Including Necropsy Observations. E. Ziskind, W. Bayley and E. F. Mauer, Los Angeles.—p. 753.
Role of Arteries in Peripheral Resistance of Hypertension and Related States. Enid Tribe Oppenheimer and M. Prinzmetal, New York.—p. 772.
Hydatid Disease: Clinical, Laboratory and Roentgenographic Observations. M. F. Godfrey, Sydney, Australia.—p. 783.
Adrenals and Experimental Pancreatic Diabetes. J. M. Rogoff and H. W. Ferrill, with assistance of E. Nola Nixon, Chicago.—p. 805.
*Weil's Disease: Report of Seven Cases. A. R. Gaines and R. P. Johnson.—p. 817.
Influence of Fat on Concentration of Sugar in Blood and in Urine in Diabetes Mellitus. M. Wishnofsky, A. P. Kane and W. C. Spitz, Brooklyn.—p. 837.
*Chronic Arsenical Poisoning During Treatment of Chronic Myeloid Leukemia. E. V. Kandel and G. V. LeRoy, Chicago.—p. 846.
Dermatologic Manifestations of Lymphoblastoma-Leukemia Group. E. Epstein, Oakland, Calif., and Katherine MacEachern, Los Angeles.—p. 867.
Metabolism of Sodium *d*-Lactate: I. Utilization of Intravenously Injected Sodium *d*-Lactate by Normal Persons. L. J. Soffer, D. A. Dantes, R. Newburger and H. Sobotka, New York.—p. 876.
Id.: II. Utilization of Intravenously Injected Sodium *d*-Lactate by Patients with Acute Diffuse Parenchymal Injury of Liver. L. J. Soffer, D. A. Dantes, R. Newburger and H. Sobotka, New York.—p. 882.
Syphilis: Review of the Recent Literature. P. Padget and J. E. Moore, Baltimore.—p. 887.

Weil's Disease.—Gaines and Johnson review the pertinent literature on Weil's disease and describe the important symptoms in the thirteen cases reported previously in North America and of their series of seven cases. The relationship of Weil's disease to infectious jaundice is discussed. The diagnosis and treatment are considered, with particular attention to their results of treatment with neoarsphenamine intravenously and convalescent whole blood and serum intramuscularly. The most unusual feature was the typical painless obstructive jaundice of eight months' duration noted in the second patient at the time of his admission to the hospital. Operation and necropsy in this case revealed complete inflammatory atresia of the intramural portion of the common bile duct secondary, presumably, to Weil's disease. The third patient showed an afebrile course, and leptospirae were demonstrable in the blood by dark-field examination for nine weeks. The fourth patient also was afebrile throughout, and leptospirae were demonstrable for five weeks. The fifth patient appears to be the only woman with Weil's disease in the North American literature, except in one instance of accidental laboratory infection. The seventh patient showed an afebrile course and was ambulatory for a period of eight months before the diagnosis was made; cholecystectomy was performed during this period without benefit. Six of these cases were diagnosed during a period of six months, indicating that this condition may not be rare. The disease should be considered more often when there is unexplained jaundice.

Arsenical Poisoning During Treatment of Leukemia.—Kandel and LeRoy describe a case of chronic myeloid leukemia in which intensive treatment with solution of potassium arsenite and x-rays was given and in which cutaneous and hepatic lesions due to the arsenic developed. The results of arsenic therapy of five other patients with chronic myeloid leukemia who showed certain features of this form of treatment are included. Five of the six patients presented at one time or another in the course of treatment complications (herpes zoster, cirrhosis, keratosis, polyneuritis, erythema, portal fibrosis and ascites) known to result from arsenic. All these patients after taking the drug for longer than five or six months complained of a chronic cough, and examination of the chest frequently disclosed moist râles. Since many patients readily tolerate enough arsenic to produce these complications without suffering unduly from the minor so-called subtoxic symptoms of conjunctival and nasal congestion and gastrointestinal disorders, the therapeutic principle is obvious: A patient should not be permitted to dose himself to his idea of tolerance with solution of potassium arsenite over long periods without medical supervision. The possibility that ascites is due to the therapy should be remembered, and when it occurs a long rest period, with administration of diuretic drugs, is indicated. If keratosis appears, permanent interdiction of arsenic is not indicated. Rather, the drug should be discontinued until the soreness leaves and then begun again cautiously. If the leukocyte count does not stay at a low level during the rest periods but rises so rapidly that solution of potassium arsenite must be taken almost continuously, roentgen therapy should be given. Arsenic therapy and roentgen therapy are not antagonistic, and a remission of leukocytosis may be induced with arsenic as soon as the postirradiation decline of the leukocyte count ceases. Also, years of arsenic medication do not render a patient resistant to roentgen therapy. The employment of the twenty-one day cycle of increasing doses of solution of potassium arsenite, followed by twenty-one days of rest, seems to be the most satisfactory method of giving the drug. With control of the course by making frequent leukocyte counts, especially at the onset of treatment, necessary adjustments of the doses are readily made. In cases of typical chronic myeloid leukemia the outlook is best when the hemoglobin and erythrocyte counts can be kept at the highest level. Vigorous effort to attain an approach to normality in this respect is important.

Archives of Pathology, Chicago

24: 537-702 (Nov.) 1937

Relation of Paralytic Shellfish Poison to Certain Plankton Organisms of the Genus Gonyaulax. H. Sommer, W. F. Whedon, C. A. Kofoid and R. Stohler, San Francisco.—p. 537.
Paralytic Shellfish Poisoning. H. Sommer and K. F. Meyer, San Francisco.—p. 560.
*Development of Local Cellular Reaction to Tuberculin in Sensitized Calves. W. H. Feldman, Rochester, Minn., and C. P. Fitch, St. Paul.—p. 599.
Cholesterol-Induced Arteriosclerosis in Rabbits, with Variations Due to Altered Status of Thyroid. F. R. Menne, J. A. P. Berman and D. H. Labby, Portland, Ore.—p. 612.
Shock, Its Mechanism and Pathology. V. H. Moen, Philadelphia.—p. 642.

Local Cellular Reaction to Tuberculin.—Feldman and Fitch made a histologic study of the changes in the tissues which follow intracutaneous injection of tuberculin into experimentally sensitized calves. The study included nine calves which were infected with bovine tubercle bacilli and two control calves which were not infected. After the lapse of fifty-eight days, the usual diagnostic dose of mammalian tuberculin was injected into the derma of each caudal fold of each calf. Starting at the third hour after the tuberculin was introduced and continuing at intervals to the twenty-eighth day, portions of the respective caudal folds were removed for biopsy. The essential histologic features were as follows: The reactive process gave evidence of a constant predilection for the perivascular and perineural tissues. During the early phases of the reactive process polymorphonuclear leukocytes were numerous. Eosinophilic granulocytes and histiocytes were in the minority. A histiocytic or mononuclear cellular reaction gradually replaced the polymorphonuclear leukocytes and dominated the picture, beginning at the sixtieth or the seventy-second hour. Edema appeared early in the reaction and disappeared between the fifth and seventh days. Certain endovascular changes, including thrombosis and endarteritis, occurred. Resolution of the cellular reaction had not occurred after twenty-eight days. The injection of tuberculin into the skin of nonsensitized calves failed to provoke demonstrable changes.

Arkansas Medical Society Journal, Fort Smith

34: 105-130 (Nov.) 1937

New Method for Administration of Whole Blood Transfusions. A. M. Elton, Newport.—p. 105.
Report on Use of Insulin in Treatment of Schizophrenia. N. T. Hollis, Little Rock.—p. 107.
Prevention and Treatment of Puerperal Sepsis. R. C. Shanlever, Jonesboro.—p. 113.

Canadian Medical Association Journal, Montreal

37: 415-524 (Nov.) 1937

The Physical Welfare of the Dionne Quintuplets. A. R. Dafoe, Callander, Ont., and W. A. Dafoe, Toronto.—p. 415.
Abstracts of Studies on Development of Dionne Quintuplets. W. E. Blatz, Toronto.—p. 424.
*Attempt to Inhibit Development of Tar Carcinoma in Mice (Third Report): Effects of Vitamins on Tumor Threshold. J. R. Davidson, Winnipeg, Manit.—p. 434.
Immediate Treatment of Facial Fractures. S. Gordon, Toronto.—p. 440.
Osteomyelitis of Superior Maxilla in New-Born Infants. A. Goldbloom and H. L. Bacal, Montreal.—p. 443.
Atrophic Rhinitis: The Constitutional Factor: Treatment with Estrogenic Hormones. H. Mortimer, R. P. Wright and J. B. Collip, Montreal.—p. 445.
Observations on Experimental and Clinical Use of Sulfanilamide in Treatment of Certain Infections. P. H. Long and Eleanor A. Bliss, Baltimore.—p. 457.
Essential Cardiovascular Hypertension as Revealed in Examination of Fundus Oculi. F. T. Tooke and J. V. V. Nicholls, Montreal.—p. 466.
Pentothal Sodium as Hypnotic in Obstetrics. F. L. MacPhail, H. R. D. Gray and W. Bourne, Montreal.—p. 471.
Neonatal Mortality: A Study of an Eleven Year Period of Obstetrics in a Small City. J. H. Duncan, Sault Ste. Marie, Ont.—p. 474.
Dermatologic Neurosis. W. R. Jaffrey, Hamilton, Ont.—p. 478.
Radiologic Education. W. A. Jones, Kingston, Ont.—p. 480.
Treatment of Gonorrhea by Hyperpyrexia in General Practice. W. H. Avery, Toronto.—p. 482.
*Treatment of Epilepsy in Children. H. M. Keith, Montreal.—p. 485.

Development of Tar Carcinoma in Mice.—Having observed for six years more than 600 mice in which tar carcinoma was produced and inhibited, it seems to Davidson to be fairly well demonstrated that the tumor threshold of the mouse can be lowered by tar irritation and raised or maintained at a fairly constant level by breeding and diet, with varying dosages of vitamins administered in the diet (especially those associated with reproduction, A, B and E). A distinct difference is observed in the condition of the control groups on the two different vitamin diets. The following information obtainable with the completion of this series, on the death of all the experimental mice, will be of help in adjusting vitamin dosage: (1) whether the present vitamin dosage of the high vitamin diet will maintain the animal throughout life or will have to be increased with age and (2) to observe and compare the tumor threshold in different groups.

Treatment of Epilepsy in Children.—A ketogenic diet, producing large amounts of diacetic acid in the urine, is a satisfactory method of treating epilepsy, particularly in children. Keith has treated 160 patients satisfactorily over a period of from one to nine years. Of these, 36 per cent remained entirely free from attacks of any type so far as is known to themselves or to their parents; 21 per cent were improved, having only an occasional attack; 43 per cent were not benefited, although they carried out instructions fully. Therefore with the ketogenic diet alone one third of the epileptic children can be made free from seizures and from 50 to 60 per cent can be improved. A ketogenic diet, to be effective, must be rigidly controlled and should be a weighed diet. It is necessary that in the diet the ratio of the ketogenic material to the antiketogenic be at least 3:1. For children the number of calories is 55 per kilogram, or 25 per pound of body weight. The amount of protein is set at 1 Gm. per kilogram of body weight. The carbohydrate and the fat are then adjusted so that the ratio is as indicated and the calories are satisfactory for nutrition and growth. In using diet or medication one must not lose sight of the necessity for healthy outdoor exercise or adequate rest and general hygienic measures. For many years surgeons have attempted to treat epilepsy by different forms of surgical procedures. These methods are perhaps more often carried out in adults than in children. A tumor may produce convulsive attacks, and many tumors may now be removed with satisfactory results. However, first one must study the patient's history, the pattern of the seizures, the neurologic examination and finally the encephalogram, to determine what area of the brain has been involved. If these all point in the same direction, it is then considered advisable to explore the suspected area of the cerebral cortex with electrical stimulation. If the focus is found as suspected, the area may often be removed with successful results.

Colorado Medicine, Denver

34: 769-880 (Nov.) 1937

Artificial Fever Therapy. W. M. Simpson and H. W. Kendell, Dayton, Ohio.—p. 782.
Pathogenesis and Clinical Management of Gastric and Duodenal Ulcer. W. L. Palmer, Chicago.—p. 796.
Radiation Therapy in Nonmalignant Diseases: Postoperative Parotitis. K. D. A. Allen, Denver.—p. 799.
Schilling Hemogram as Laboratory Aid in Diagnosis and Prognosis. J. J. McGill, Casper, Wyo.—p. 844.

Endocrinology, Los Angeles

21: 711-860 (Nov.) 1937

Studies on Corpus Luteum Function: I. Urinary Excretion of Sodium Pregnanediol Glucuronidate in Human Menstrual Cycle. Eleanor Hill Venning and J. S. L. Browne, Montreal.—p. 711.
Responses of Human Ovary to Gonadotropic Principles. E. C. Hamblen and R. A. Ross, Durham, N. C.—p. 722.
Some Effects of Estrogens on Uterus of the Mouse. W. U. Gardner and E. Allen, New Haven, Conn.—p. 727.
Composite Nature of Estrus Phenomenon. S. C. Freed, S. D. Mesirow and S. Soskin, Chicago.—p. 731.
Effect of Large Doses of Estrin on Pituitary, Adrenal and Thymus Weights of Mature Ovariectomized Rats. H. Lauson, C. G. Heller and E. L. Sevringhaus, Madison, Wis.—p. 735.
*Excretion of Androgenic and Estrogenic Substances in Urine of Children. R. I. Dorfman, W. W. Greulich and C. I. Solomon, New Haven, Conn.—p. 741.
Induction of Penile Erection by Male Hormone Substances. J. B. Hamilton, Albany, N. Y.—p. 744.
Testosterone and Testosterone Acetate and Protein and Energy Metabolism of Castrate Dogs. C. D. Kochakian, Rochester, N. Y.—p. 750.
Effect of Testosterone, Testosterone Propionate and Dehydro-Androsterone on Secretion of Gonadotropic Complex as Evidenced in Parabiotic Rats. R. Hertz and R. K. Meyer, Madison, Wis.—p. 756.
Plasma Electrolyte Disturbance in Patient with Hypercortico-Adrenal Syndrome Contrasted with That Found in Addison's Disease. I. McQuarrie, R. M. Johnson and M. R. Ziegler, Minneapolis.—p. 762.
Creatinuria and Creatine Tolerance in Childhood, with Especial Reference to Bone Age and Hypothyroidism. E. K. Shelton and B. N. Tager, Los Angeles.—p. 773.
Effect of Thyroglobulin and Related Substances on the Oxygen Consumption of Liver in Vitro. A. Canzanelli and D. Rapport, with assistance of M. Greenblatt and J. R. Lourie, Boston.—p. 779.
Effect of Thyroidectomy and Thyroid Feeding in Geese on Basal Metabolism at Different Temperatures. M. Lee and R. C. Lee, Boston.—p. 790.
Effect of Hypoglycemia on the Metabolism of the Brain. H. E. Himwich and J. F. Fazekas, Albany, N. Y.—p. 800.
Effect of Splenectomy on Weight of Hypophysis of Albino Rat. L. F. Edwards and C. W. Wright, Columbus, Ohio.—p. 808.
Alterations in the Percentage of Cell Types in Hypophysis by Gonad Transplantation in the Rat. C. A. Pfeiffer, New Haven, Conn.—812.

Excretion of Androgenic and Estrogenic Substances.—To determine the presence of androgenic and estrogenic activity, Dorfman and his co-workers assayed the total excretion of urine, for periods varying between twenty-four and 168 hours, from eighteen boys and five girls from 6 to 16 years of age. Androgenic activity was found in the urine of all the children in amounts varying from 1.1 to 32 international units for twenty-four hours. The estrogenic activity observed ranged from less than 5 to 95 international units for the same period. The androgenic and estrogenic activities of the urines vary in puberal boys of the same chronological age also differ markedly in the degree of their physical development, one may expect comparable differences in their hormone excretion. These considerations indicate the inadequacy of chronological age alone as a criterion of maturity. They emphasize also the need for caution in interpreting the results of assays of pooled samples of urine from children of the same chronological age, if the latter differ markedly in their developmental status. Because of this variation the assay values for the various age groups in the authors' study are not necessarily the same as those which may be found for other children of the same age. Owing to the marked variation in the developmental status of children of the same chronological age, the relationship of the excretion of the sex hormone more directly to the degree of physical maturity is being investigated.

FOREIGN

An asterisk (*) before a title indicates that the article is abstracted below. Single case reports and trials of new drugs are usually omitted.

British Medical Journal, London

2: 837-888 (Oct. 30) 1937

Staphylococci Pathogenic for Man. J. W. Bigger.—p. 837.
Treatment of Thrombocytopenic Purpura. Janet M. Vaughan.—p. 842.
Nervous Factor in Juvenile Asthma. A. K. Clarkson.—p. 845.
*Blood Bromide Investigations in Psychotic Epileptics. L. Minski and J. B. Gillen.—p. 850.
*Treatment of Obstinate Edema by Multiple Punctures. M. Sein.—p. 852.

Blood Bromide Investigations in Psychotic Epilepsy.—Minski and Gillen estimated the blood bromides of thirty-two chronic epileptic psychotic patients and, although comparatively high levels were found in many cases, no obvious instances of true bromide intoxication showing delirious or confusional reactions were discovered. Reduction in the level of the bromide produced no appreciable change in the mental state and no marked increase in the number of fits, which were definitely reduced in eight cases.

Treatment of Obstinate Edema by Multiple Punctures.—Sein believes that the mechanical removal of edema fluid by acupuncture is a useful addition to the therapeutic measures available for the treatment of obstinate edema. The method possesses several advantages over the use of Southey's tubes. The patient having been placed in the most comfortable position, the legs and feet are prepared as for an operation. From fifteen to twenty punctures are made with a triangular skin-needle on the inner aspect of the lower part of the legs and the dorsum of the feet. The needle is placed against the skin and quickly pressed into it, and the point is pushed obliquely upward into the subcutaneous tissue and withdrawn. Veins can be felt and avoided, but bleeding, if it occurs, is easily controlled by a little pressure. Fluid will flow out from the punctures and collect in the receptacle placed under the feet. If the ascites tends to diminish rapidly, it is advisable to apply an abdominal binder as after paracentesis. Light massage of the limbs may be employed to promote drainage and overcome the stiffness of the joints. When it is decided to stop the drainage, all that is necessary is to put the patient to bed and wrap the legs and feet in an absorbent dressing for two or three days while some oozing from the punctures remains.

Glasgow Medical Journal

10: 137-192 (Oct.) 1937

Prolegomena to Study of Therapeutics. N. Morris.—p. 137.

Irish Journal of Medical Science, Dublin

No. **142:** 617-654 (Oct.) 1937

*Some Chronic Nontuberculous Pulmonary Conditions. G. T. O'Brien.—p. 617.
Treatment of Melancholia in Private Practice. R. Thompson.—p. 626.
Ectopia Lentis Associated with Arachnodactyly: Case. E. Maxwell.—p. 632.
Corneal Transplantation in an Aphakic Eye. J. B. McArevey.—p. 635.
Abnormal Renal Artery: Note. T. J. D. Lane.—p. 638.

Some Chronic Nontuberculous Pulmonary Conditions.—O'Brien cites some of the clinical and x-ray features of a group of patients suffering from nontuberculous diseases of the lungs. Such features are not rare and interesting, but their incidence should be considered. Three groups of cases are presented: the bronchiectatic, the indeterminate and the neoplastic. In a certain number of these patients the physical signs and general examination could lead to only one diagnosis, namely, pulmonary tuberculosis; but here is stressed the necessity for auxiliary aids to diagnosis in cases of pulmonary disease simulating tuberculosis when the bacillus of tuberculosis is repeatedly absent from the sputum, in "mirror tests" of expired air and in contents of gastric lavage.

J. Royal Inst. Public Health and Hygiene, London

1: 1-64 (Oct.) 1937

Significance of Nutrition to a Medical Officer of Health. J. W. Starkey.—p. 11.
The Cost of Tuberculosis Schemes. J. B. McDougall.—p. 22.
Mental Health and the Community. Doris M. Odlum.—p. 35.
After-Care and Reemployment of the Tuberculous Patient. E. L. Sandiland.—p. 46.

Journal of Tropical Medicine and Hygiene, London

40: 237-256 (Oct. 15) 1937

Bronchomoniliasis. R. S. Flinn and J. W. Flinn.—p. 237.
Morphology and Biology of Actinomyces Israeli (Kruse, 1896). P. Negroni and H. Bonfiglioli.—p. 240.
Permanence of Biochemical Characters Used in Differentiation of Certain Species of Fungi. J. C. Swartzwelder.—p. 246.
Use of Isolated Infective Flies in Transmission Experiments with Glossina Morsitans and Trypanosoma Rhodesiense. J. F. Corson.—p. 248.

Lancet, London

2: 891-948 (Oct. 16) 1937

Physical Unfitness in Relation to Density of Population. J. Barcroft.—p. 891.
Reaction of Tarred Rabbits to Infectious Fibroma Virus (Shope). C. H. Andrewes, C. G. Ahlström, L. Foulds and W. E. Gye.—p. 893.
Use of Prontosil in Treatment of Gonorrhea. T. F. Crean.—p. 895.
*Anemia and Agranulocytosis During Sulfanilamide Therapy. G. H. Jennings and G. Southwell-Sander.—p. 898.
Source of Androgenic and Estrogenic Substances of Urine. A. S. Parkes.—p. 902.
Closed Ventriculography. E. F. Skinner.—p. 903.

Anemia and Agranulocytosis During Sulfanilamide Therapy.—During the past two years since the introduction of prontosil, various similar compounds have been employed. Jennings and Southwell-Sander say that it is becoming evident that insufficient warning was given of the possible toxic effects of these drugs. There may occur cerebral disturbances; e. g., drowsiness, dizziness, headache and disorientation. Also described are alimentary symptoms, such as vomiting, the signs of irritation of the urinary tract and signs of peripheral sensory disturbance. An important toxic effect of this group of drugs is shown in the blood picture. Sulfhemoglobinemia and methemoglobinemia are the best known features of this. The authors' report is confined to the toxic effect of the drugs shown by the blood count, which revealed in one of their cases a complete agranulocytosis and in three others some degree of anemia with evidence of abnormal activity of the bone marrow. As is suggested by its chemical structure, *p*-aminobenzenesulfonamide (sulfanilamide, or prontosil album) is a potential marrow poison. The experience of others suggests that the new drugs related to sulfanilamide are likely also to have a similar action on the marrow. Both erythropoiesis and leukopoiesis may be depressed by sulfanilamide, and as is true of other of its compounds, it may act to a different degree on these two functions in the same individual. In considering treatment with these drugs, certain facts must be borne in mind. "Idiosyncrasy" may be present and result in the appearance of symptoms after the administration of a small quantity of the drug. Apart from any such dramatic abnormality in the response, symptoms of toxicity may appear after prolonged or intensive administration: the size of the dose required to cause such symptoms is variable. The general health of the patient may be of importance. The treatment should be guided whenever possible by blood counts. The appearance of immature erythrocytes or a leukopenia is an indication to pause in the therapy. Control of the blood picture is particularly desirable when intense or prolonged therapy (longer than two weeks) is projected.

Quarterly Journal of Medicine, Oxford

6: 353-480 (Oct.) 1937

Studies in Graves' Disease: Alterations in Gastric Secretion and Correlated Blood Changes. Florence Lewis and Lucy Wills.—p. 353.
The Psychologic Factors in Asthma-Prurigo. C. H. Rogerson.—p. 367.
Isolated Uncomplicated Dextrocardia. D. S. Stevenson.—p. 395.
Huntington's Chorea in South Wales. J. Spillane and R. Phillips.—p. 403.
*Lung Changes in Influenza. J. G. Scadding.—p. 425.
Plasma Lipids in Diagnosis of Mild Hypothyroidism. E. M. Boyd and W. F. Connell.—p. 467.

Effects of Influenza on the Lung.—Scadding made a clinical study of the changes in the lungs of fifty-eight patients with influenza admitted to Hammersmith Hospital in December 1936 and January 1937. The influenzal virus was isolated from four of these patients. Twenty-two cases presented abnormal pulmonary physical signs without x-ray evidence of consolidation. In the less severe cases of this group, areas of "suppressed" breath sounds at the bases were the most distinctive physical signs. The more severe cases presented a clinical picture of edematous bases of the lungs and their gen-

eral aspect resembled that of patients with actual consolidation. Nineteen had actual consolidation. Of these, seven died. The characteristics of the signs of consolidation were extreme dulness to percussion, weak tubular or bronchial breath sounds and egophony. Bacteriologic studies of the sputums showed that the bacterial flora of the series as a whole was no different from that of the noninfluenzal sputums examined during the period of the epidemic. Analysis of the results according to the clinical grouping showed significant differences between the bacterial type-distributions in the various groups: pneumococci, which were absent from the sputums of the group without evidence of pulmonary involvement, predominated in the group of those with consolidation. One case of fulminating "influenzal" pneumonia, fatal on the third day, is described. In the lung both Staphylococcus aureus, in enormous numbers, and the virus were demonstrated. The difference between this series and the disease in pandemic times is one of degree rather than of kind. The influenzal virus can produce severe changes in the lung in man which facilitate invasion by bacteria. The course of the disease depends on the extent and virulence both of the virus and of the bacterial infection; the extraordinary variability of the clinical picture is due to the numerous possible combinations of these factors.

Bull. of Health Org., League of Nations, Geneva

6: 129-298 (April) 1937

Report on Work of Group of Experts Appointed to Study Methods of Assessing the State of Nutrition in Infants and Adolescents: Introduction. E. J. Bigwood.—p. 129.
Id.: Recommendations Made by the Experts.—p. 137.
Id.: Methods of Assessing the State of Nutrition of Children and Adolescents Considered in Relation to Defective Diet. E. J. Bigwood. —p. 141.
Prophylaxis of Typhus Fever and Vaccination Against That Disease: Introduction. Y. Biraud.—p. 203.
Id.: Report on Consultation of Experts on Prevention of Typhus and Vaccination Against That Disease.—p. 213.
Serum Diagnosis of Enteric Fever: Report and Recommendations. A. Felix and A. D. Gardner.—p. 223.
Prevention of Malaria in the Field by Use of Quinine and Atabrine: Experiments in Clinical Prophylaxis. J. W. Field, J. C. Niven and E. P. Hodgkin.—236.
Nutritive Requirements During the First Year of Life: Introduction. E. J. Bigwood.—p. 291.
Id.: Recommendations Made by the Experts.—p. 293.

Chinese Medical Journal, Peiping

52: 143-316 (Aug.) 1937

Study of 355 Cases of Peptic Ulcer. H. C. Chang and F. C. Chang. —p. 143.
*Acute Perforated Peptic Ulcer: Analysis of Thirty-Seven Operated Cases. C. C. Chang.—p. 161.
Carcinoma of Stomach: Clinical Study of 108 Cases. K. C. Chen.—p. 177.
Gastric Resection: Indications, Technic and End Results. H. H. Loucks. —p. 191.
Electrosurgical Technic for Aseptic Anastomosis of Stomach and Intestine. Y. C. Chao.—p. 211.
The Janeway Gastrostomy. H. C. Fang.—p. 225.
Carcinoma of Esophagus: Statistical Study. K. W. Kwan.—p. 237.
Traumatic Wounds of the Abdomen. S. T. Kwan and C. P. Yang.—p. 255.

Acute Perforated Peptic Ulcer.—Chang considers the general data of peptic ulcer as observed at the Peiping Union Medical College and as a survey of the results of treatment. The incidence of peptic ulcer revealed by 2,000 consecutive necropsies was 1.7 per cent. The ratio between males and females suffering from this condition was 3.3:1. The incidence of perforation among the total number of patients with peptic ulcer admitted was 10.4 per cent: 13.2 per cent among the men and 1.2 per cent among the women. The third decade of life was the age of highest incidence and at least one third of all the perforations occurred before symptoms had been present for more than one year. More than 97 per cent of the perforations were located at or near the pylorus. The time elapsing between perforation and operation was the most important single factor affecting the prognosis. The mortality rose in direct proportion to the lapse of time up to the end of the second day, after which it declined slowly. Diffuse peritonitis, usually streptococcic, constituted the most fatal complication, whereas bronchopneumonia was the most frequent. Simple closure, excision and pyloroplasty, closure and gastro-enterostomy were the chief procedures employed in treatment. None of these methods yielded strikingly different end results. The author favors simple closure and pyloroplasty in most instances rather than gastro-enterostomy. Primary partial gastrectomy is believed to carry a prohibitive mortality in the hands of the occasional operator, although excellent results have been reported by experienced surgeons. Careful postoperative care and prolonged medical management are essential in all instances. The end results of all types of therapy still leave much to be desired.

Archives de Médecine des Enfants, Paris

40: 681-760 (Nov.) 1937

Clinical and Experimental Research on Malignant Diphtheria. A. Stroe and D. Hortopan.—p. 681.
*Large Doses of Strychnine in Treatment of Grave Diphtheria. G. Paisseau and P. Carrez.—p. 710.
*Serotherapy in Diphtheritic Paralysis. R. Cruchet and É. Ginestous. —p. 725.

Large Doses of Strychnine in Grave Diphtheria.—Paisseau and Carrez report observations on the use of strychnine in grave diphtheria. Croup is the only contraindication to strychnine therapy. They emphasize that this treatment must be reserved exclusively for the grave forms and that strong doses can be employed only under careful medical supervision, which must be practically incessant. They use a 2:1,000 solution. The subcutaneous injections are given at three hour intervals. In cases in which moderate doses are given, five or six injections are used in the course of twenty-four hours, but to administer the strong doses, from seven to eight injections have to be given. In determining the doses, the tolerance of the subject as well as the gravity of the clinical form has to be considered. In the grave forms that are characterized by local signs of malignancy, extensive and perhaps fetid membranes and considerable cervical adenopathy, but in which generalized grave signs are absent, it is generally sufficient to administer 0.5 mg. of strychnine per kilogram of body weight in twenty-four hours. This dose must be reached in three or four days and may, if necessary, be increased to around 1 mg. With these doses the authors experienced not a single fatal accident. In the malignant anginas, in which the mortality is rather high, a dose of 1 mg. per kilogram of body weight for the twenty-four hour period is the minimum. After remarks about the so-called supporting strychnine therapy for cases in which the diphtheria takes a rather slow course, the authors discuss associated treatments, pointing out that they always utilize the other classic treatments, such as total adrenal extract or epinephrine and especially ouabain, which is particularly helpful in case of appearance of signs of cardiac insufficiency. The use of digitalis preparations is advised against by some authors, since its association with strychnine supposedly increases the toxicity. Discussing the accidents of strychnine therapy and their treatment, the authors point out that in children the signs of intolerance to strychnine are not so characteristic as in adults. However, one of the signs that make advisable an arrest of the progression or a temporary reduction of the doses is the extension of the reflexogenic zones in the region of the knee reflexes. It is advisable to test these reflexes shortly before a strychnine injection is made.

Serotherapy in Diphtheritic Paralysis.—Cruchet and Ginestous review the literature on serotherapy of diphtheritic paralysis. They cite Ferré's studies on avian diphtheria and show that these investigations became the basis of the serotherapy of diphtheritic paralysis. They differentiate two groups: (1) the associated paralyses, which develop in the course of the untreated or insufficiently treated cases of diphtheria, and (2) the isolated paralyses, which develop after the diphtheritic angina seems completely cured. In the latter cases the most frequent form of paralysis is that which ophthalmologists refer to as the paralysis of accommodation. They conclude that serum should be administered even in the isolated forms of diphtheritic paralysis, when the false membranes have already disappeared and the diphtheria is at least apparently cured. The serum should be administered in doses of from 40 to 60 cc. on the first days and should be decreased thereafter. However, only in exceptional cases is it advisable to exceed a total of from 100 to 200 cc. The intravenous injection (from 10 to 20 cc.) is to be recommended in grave cases. In the malignant forms the authors usually give simultaneously antigangrenous and antistreptococcus serum. All other treatments likewise can

be associated with the serotherapy. Depending on the circumstances, epinephrine, ouabain or strychnine sulfate may be given. In the toxic forms with oliguria, physiologic solution of sodium chloride should be given by rectal drip.

Journal de Médecine de Lyon

18: 577-608 (Nov. 5) 1937

[6]Low Leptomingitides: Clinical and Therapeutic Studies on Fourteen Cases. Devic, Ricard and M. Girard.—p. 577.

Leptomeningitides.—Devic and his associates emphasize the increasing frequency of the low leptomeningitides among the syndromes of the cauda equina. They report clinical and therapeutic studies on fourteen cases. Anatomically the adherent process is most often encountered in the cystic type. The etiology of these syndromes is not completely clarified; it has never been possible to isolate precisely and incontrovertibly the local or general causes. From the pathogenic point of view, the authors agree with Bériel that the physiologic process of sedimentation plays a part in the low localization of the infectious process. It is possible to distinguish a clinical form with scant symptomatology, pain being the only symptom. The authors emphasize the information derived from the study of the cerebrospinal fluid: presence of hyperalbuminosis and frequency of a slight cellular reaction. The progress of the iodized oil provides in the majority of cases interesting and exact diagnostic data. The mode of progression of the syndrome determines its individuality. The evolution is slow, but capriciously there are sudden exacerbations and veritable evolutive thrusts, after which there is a gradual diffusion and bilaterality of the signs. Phases of remission of several years' duration have been noted. From the diagnostic point of view, the identification of the syndrome of the cauda equina in most cases gives no serious difficulties. The true diagnostic problem is the differentiation between tumors of the cauda equina, the leptomeningitides and the diseases of the conus terminalis. To differentiate between these conditions it is necessary to pay attention to the distribution of the symptoms, to the mode of development of the syndrome and to information obtained from the lumbar puncture and from the progress of the iodized oil. The therapeutic problem is solved: it is the surgical intervention, which nevertheless has a more reserved prognosis in the leptomeningitides than in the tumors of the roots. The surgical results obtained by the authors are encouraging. Although occasionally not enough time had elapsed to judge the late results, they obtained five cures, four such considerable ameliorations as to be almost cures, generally permitting the patient to take up his work again, two arrests of the process, one of them partial, and, finally, three postoperative deaths; but one of these patients has a latent diabetes. These results, although not perfect, give ample justification for the surgical treatment, the only effective therapeutic measure, internal medication and physical therapy being always ineffective. The authors admit that the spinal arachnoiditides are a much discussed problem, but in this report they study only the arachnoiditis of the cauda equina. To be sure, this low leptomeningitis may concur with forms that are localized higher up. They had occasion to observe two cases in which the two localizations coexisted.

Progrès Médical, Paris

Nov. 6, 1937 (No. 45) Pp. 1554-1592

Evolution and Present-Day Tendencies in Surgical Treatment of Pulmonary Tuberculosis. R. Démarez.—p. 1561.

Establishment of "Adolescogram" (Puberal Growth). J.-L.-M. Jansen. —p. 1565.

*Simple and Efficacious Method of Oral Calcium Therapy. H. Fillion and P. Millischer.—p. 1566.

Developmental Disturbances of Hypophysial Origin. M. Bariety.—p. 1570.

Simple Method of Oral Calcium Therapy.—Fillion and Millischer say that the metabolism of calcium is not completely understood and that the dosage in calcium therapy is likewise still indefinite. It has been found that the degree of calcemia does not permit the estimation of the state of calcification or of decalcification of the organism. Moreover, the blood calcium exists in several forms, the most interesting of which, the active ionized form, is extremely difficult to estimate. The therapeutic procedure which the authors studied has the advantage of being simple, efficacious and without danger. Their technic is the following: Into a flask of about 250 cc. capacity, they place the finely crushed shell of an egg. They add the juice of two lemons and seal the flask hermetically. The contents of the flask are kept for about two hours at a temperature of 18 C. After this the flask, which must still contain carbon dioxide, has to be opened. Its contents are filtered through gauze into a glass, into which a desired amount of sugar had been placed. The mixture is immediately taken by the patient; but depending on the patient's taste, some water may be added. The procedure can be employed for periods of from fifteen to twenty days, separated by short intervals. Discussing the elements that play a part in this therapy, the authors say that the egg shell consists chiefly of more or less phosphatized calcium carbonate. The lemon juice contains from 4 to 7 per cent of citric acid, also small quantities of alkaline citrates, of other organic acids and their salts, of mineral salts and of vitamins, particularly of vitamin C, and of provitamin P. After making suggestions about the possible mode of action of the various substances, the authors discuss their therapeutic experiences with this method over a period of eighteen months. They employed it in various spasmodic disorders. They obtained favorable results in whooping cough, in spasmophilic conditions such as tetany, in nervous irritability, and in colitis and other enteric disorders. In the last part of the paper they cite experiments on animals. In rabbits, which had been inoculated with the virus of rabies, it could be demonstrated that the administration of the preparation used by the authors retarded the development of the symptoms, whereas the administration of calcium gluconate or of the vitamin B_1 or C did not do this.

Schweizerische medizinische Wochenschrift, Basel

67: 1081-1104 (Nov. 13) 1937

Surgical Alleviation of Pain in Gynecologic Disorders. H. Guggisberg. —p. 1081.

Pathogenesis and Therapy of Sudden Circulatory Failure. E. Liebmann. —p. 1086.

Clinical Aspects of Cancer of Kidney in Infants. R. Jemma.—p. 1089.

Results of Goiter Prophylaxis in Canton of Wallis and Remarks on Problem of Goiter. O. Bayard.—p. 1093.

*Genesis of Sea and Automobile Sickness. W. Tobler.—p. 1096.

Genesis of Sea and Automobile Sickness.—Tobler directs attention to the theory of sea, air and train sickness presented by Lenggenhager (see also abstract in THE JOURNAL, June 20, 1936, p. 2203), who demonstrated that the disturbances characteristic for sea sickness are not elicited by the labyrinth but rather by fluctuations in the pressure and traction exerted on the large sympathetic nervous plexus in the epigastric region. In the present report Tobler brings corroborating evidence for Lenggenhager's theory. A girl, aged 10, was subject to automobile sickness when traveling through the mountains, and the usual remedies were without avail. In accordance with Lenggenhager's suggestion, to avoid pressure and traction on the viscera the child was placed prone on an upholstered board. During two hours of travel over mountainous roads the child remained free from all signs of automobile sickness. However, as soon as the child left the prone position there was nausea and vomiting. When the prone position was resumed again, the child again tolerated the automobile trip without difficulty. Similar observations were made on a boy, aged 13.

Rinascenza Medica, Naples

14: 653-688 (Oct. 15) 1937

*Influence of Menstruation on Elimination of Gonococcus. V. Puglisi.—p. 659.

Surgery of Ileocecal Tuberculosis. L. Radice.—p. 663.

Influence of Menstruation on Appearance of Gonococcus.—Puglisi advises making bacteriologic examinations of the menstrual blood for the diagnosis of gonorrhea in women. In a group of twenty patients he found that gonococci are eliminated in the menstrual blood during the first and last days of menstruation. In the intermediate days the menstrual blood does not contain gonococci. The author believes that gonococci are concealed in the uterine tubular glands, which are stimulated to void during the first day of menstruation, and also in the catamenial decidual cells and superficial epithelium of the uterine glands, which are eliminated on the last day of menstruation.

JOURNALS ABSTRACTED IN THE CURRENT MEDICAL LITERATURE DEPARTMENT, JULY-DECEMBER, 1937

Abstracts of important articles in the following journals have been made in the Current Literature Department of THE JOURNAL during the past six months. Any of the journals, except those starred, will be lent by THE JOURNAL to subscribers in continental United States and Canada and to members of the American Medical Association for a period not exceeding three days. Two journals may be borrowed at a time. No journals are available prior to 1927. Requests for periodicals should be addressed to the Library of the American Medical Association and should be accompanied by stamps to cover postage (6 cents if one and 12 cents if two periodicals are requested). Thus most of these journals are accessible to the general practitioner.

Acta Medica Scandinavica. Stockholm.
American Heart Journal. St. Louis.
American Journal of Anatomy. Philadelphia.
American Journal of Cancer. New York.
American Journal of Clinical Pathology. Baltimore.
American Journal of Digestive Diseases and Nutrition. Fort Wayne, Ind.
*American Journal of Diseases of Children. A. M. A., Chicago.
American Journal of Hygiene. Baltimore.
American Journal of the Medical Sciences. Philadelphia.
American Journal of Obstetrics and Gynecology. St. Louis.
American Journal of Ophthalmology. St. Louis.
American Journal of Orthopsychiatry. Menasha, Wis.
American Journal of Pathology. Boston.
American Journal of Physiology. Baltimore.
American Journal of Psychiatry. New York.
American Journal of Public Health. New York.
American Journal of Roentgenol. and Radium Therapy. Springfield, Ill.
American Journal of Surgery. New York.
American Journal of Syphilis, Gonor. and Venereal Diseases. St. Louis.
American Journal of Tropical Medicine. Baltimore.
American Review of Tuberculosis. New York.
Anatomical Record. Philadelphia.
Annales de Dermatologie et de Syphiligraphie. Paris.
Annales de Médecine. Paris.
Annali Italiani di Chirurgia. Bologna.
Annali di Ostetricia e Ginecologia. Milan.
Annals of Internal Medicine. Lancaster, Pa.
Annals of Medical History. New York.
Annals of Otology, Rhinology and Laryngology. St. Louis.
Annals of Surgery. Philadelphia.
Archiv für Kinderheilkunde. Stuttgart.
Archiv für klinische Chirurgie. Berlin.
Archiv für Verdauungs-Krankheiten. Berlin.
*Archives of Dermatology and Syphilology. A. M. A., Chicago.
Archives of Disease in Childhood. London.
*Archives of Internal Medicine. A. M. A., Chicago.
Archives Internationales de Médecine Expérimentale. Liége.
Archives des Maladies de l'Appareil Digestif. Paris.
Archives des Maladies du Cœur. Paris.
Archives Médico-Chirurgicales de l'Appareil Respiratoire. Paris.
Archives de Médecine des Enfants. Paris.
*Archives of Neurology and Psychiatry. A. M. A., Chicago.
*Archives of Ophthalmology. A. M. A., Chicago.
*Archives of Otolaryngology. A. M. A., Chicago.
*Archives of Pathology. A. M. A., Chicago.
Archives of Physical Therapy, X-Ray, Radium. Chicago.
*Archives of Surgery. A. M. A., Chicago.
Archivio Italiano di Chirurgia. Bologna.
Archivio Italiano di Dermatologia, Sifilografia e Venereologia. Bologna.
Archivio Italiano delle Malattie dell'Apparato Digerente. Bologna.
Archivio Italiano di Urologia. Bologna.
Archivio di Radiologia. Naples.
Archivio per le Scienze Mediche. Turin.
Archivio p. l. Studio d. Fisiopatologia e Clin. d. Ricambio. Siena.
Archivos Arg. de Enf. d. Ap. Digest. y de la Nutricion. Buenos Aires.
Archivos Uruguayos de Medicina, Cirugia y Especialidades. Montevideo.
Balenologe. Berlin.
Beiträge zur klinischen Chirurgie. Berlin.
Beiträge zur Klinik der Tuberkulose. Berlin.
Beiträge zur pathologischen Anatomie. Jena.
Bibliotek for Læger. Copenhagen.
Boletines y Trabajos de la Sociedad de Cirugia de Buenos Aires.
Bollettino dell'Istituto Sieroterapico Milanese. Milan.
Brain. London.
Bristol Medico-Chirurgical Journal.
British Journal of Anaesthesia. Manchester.
British Journal of Children's Diseases. London.
British Journal of Dermatology and Syphilis. London.
British Journal of Experimental Pathology. London.
British Journal of Ophthalmology. London.
British Journal of Physical Medicine. London.
British Journal of Radiology. London.
British Journal of Surgery. Bristol.
British Journal of Tuberculosis. London.
British Journal of Urology. London.
British Medical Journal. London.
Bulletin de l'Académie de Médecine. Paris.
Bulletin of Health Organisation of League of Nations. Geneva.

*Cannot be lent.

Bulletin of the Johns Hopkins Hospital. Baltimore.
Bulletin Médical. Paris.
Bulletin of Neurological Institute of New York. New York.
Bullettino delle Scienze Mediche. Bologna.
Bulletins et Mémoires de la Société Médicale des Hôpitaux. Paris.
California and Western Medicine. San Francisco.
Canadian Medical Association Journal. Montreal.
Canadian Public Health Journal. Toronto.
Chinese Medical Journal. Peiping.
Clinica Medica Italiana. Milan.
Clinica Ostetrica. Rome.
Clinical Journal. London.
Clinical Science. London.
Colorado Medicine. Denver.
Delaware State Medical Journal. Wilmington.
Dermatologische Zeitschrift. Berlin.
Dermosifilografo. Turin.
Deutsches Archiv für klinische Medizin. Berlin.
Deutsche medizinische Wochenschrift. Leipzig.
East African Medical Journal. Nairobi.
Echo Medical du Nord. Lille.
Edinburgh Medical Journal.
Encéphale. Paris.
Endocrinology. Los Angeles.
Finska Läkaresällskapets Handlingar. Helsingfors.
Folia Medica. Naples.
Fortschritte auf dem Gebiete der Rönt-enstrahlen. Leipzig.
Fortschritte der Therapie. Leipzig.
Frankfurter Zeitschrift für Pathologie. Munich.
Gazeta Médicale de France. Paris.
Gazzetta Internazionale di Medicina e Chirurgia. Naples.
Ginecologia. Turin.
Giornale di Batteriologia e Immunologia. Turin.
Giornale di Clinica Medica. Parma.
Giornale Medico dell'Alto Adige. Bolzano.
Giornale Veneto di Scienze Mediche. Venice.
Glasgow Medical Journal.
Guy's Hospital Reports. London.
Gynécologie et Obstétrique. Paris.
Hôpital. Paris.
Haematologica Archivio. Pavia.
Hospitalstidende. Copenhagen.
Hygiea. Stockholm.
Illinois Medical Journal. Chicago.
Indian Journal of Medical Research. Calcutta.
Indian Medical Gazette. Calcutta.
International Journal of Psycho-Analysis. London.
Irish Journal of Medical Science. Dublin.
Jahrbuch für Kinderheilkunde. Basel.
Japanese Journal of Experimental Medicine. Tokyo.
Japanese Journal of Gastroenterology. Kyoto.
Japanese Journal of Obstetrics and Gynecology. Kyoto.
Journal of Alabama State Medical Association. Montgomery.
Journal of Allergy. St. Louis.
Journal of Anatomy. London.
Journal of the Arkansas Medical Society. Fort Smith.
Journal of Bacteriology. Baltimore.
Journal of Biological Chemistry. Baltimore.
Journal of Bone and Joint Surgery. Boston.
Journal of Clinical Investigation. New York.
Journal of Comparative Neurology. Philadelphia.
Journal of Connecticut State Medical Society. Hartford.
Journal of Experimental Medicine. New York.
Journal of the Florida Medical Association. Jacksonville.
Journal of General Physiology. New York.
Journal of Hygiene. London.
Journal of Immunology. Baltimore.
Journal of the Indiana State Medical Association. Indianapolis.
Journal of Industrial Hygiene and Toxicology. Baltimore.
Journal of Infectious Diseases. Chicago.
Journal of Iowa State Medical Society. Des Moines.
Journal of Kansas Medical Society. Topeka.
Journal of Laboratory and Clinical Medicine. St. Louis.
Journal-Lancet. Minneapolis.
Journal of Laryngology and Otology. London.
Journal of Medical Association of Georgia. Atlanta.
Journal of Medical Society of New Jersey. Trenton.
Journal de Médecine de Bordeaux et du Sud-Ouest. Bordeaux.
Journal de Médecine de Lyon.
Journal de Médecine de Paris.

Journal of Mental Science. London.
Journal of Michigan State Medical Society. Lansing.
Journal of Missouri State Medical Association. St. Louis.
Journal of Nervous and Mental Disease. New York.
Journal of Neurology and Psychopathology. London.
Journal of Nutrition. Philadelphia.
Journal of Obstetrics and Gynaecology of British Empire. Manchester.
Journal of Oklahoma State Medical Association. McAlester.
Journal of Oriental Medicine. Dairen, South Manchuria.
Journal of Pathology and Bacteriology. Edinburgh.
Journal of Pediatrics. St. Louis.
Journal of Pharmacology and Experimental Therapeutics. Baltimore.
Journal of the Philippine Islands Medical Association. Manila.
Journal of Physiology. London.
Journal of the Royal Institute of Public Health and Hygiene. London.
Journal of South Carolina Medical Association. Greenville.
Journal of State Medicine. London.
Journal of Tennessee State Medical Association. Nashville.
Journal of Thoracic Surgery. St. Louis.
Journal of Tropical Medicine and Hygiene. London.
Journal of Urology. Baltimore.
Kentucky Medical Journal. Bowling Green.
Khirurgiya. Moscow.
Kinderärztliche Praxis. Leipzig.
Klinische Wochenschrift. Berlin.
Lancet. London.
Laryngoscope. St. Louis.
Maandschrift voor Kindergeneeskunde. Leyden.
Maine Medical Journal. Portland.
Medical Annals of District of Columbia. Washington.
Medical Bulletin of the Veterans' Administration. Washington, D. C.
Medical Journal of Australia. Sydney.
Medical Press and Circular. London.
Medicine. Baltimore.
Medizinische Klinik. Berlin.
Medizinische Welt. Berlin.
Mémoires de l'Académie de Chirurgie. Paris.
Military Surgeon. Washington, D. C.
Minerva Medica. Turin.
Minnesota Medicine. St. Paul.
Monatsschrift für Geburtshülfe und Gynäkologie. Basel.
Münchener medizinische Wochenschrift. Munich.
Nature. London.
Nebraska State Medical Journal. Lincoln.
Nederlandsch Tijdschrift voor Geneeskunde. Amsterdam.
New England Journal of Medicine. Boston.
New Orleans Medical and Surgical Journal.
New York State Journal of Medicine. New York.
Norsk Magasin for Lægevidenskapen. Oslo.
Northwest Medicine. Seattle.
Novyy Khirurgicheskiy Arkhiv. Dnepropetrovsk.
Ohio State Medical Journal. Columbus.
Paris Médical.
Pathologica. Genoa.
Pediatria. Naples.
Pennsylvania Medical Journal. Harrisburg.
Physiological Reviews. Baltimore.
Policlinico (Pract. Sect., Med. Sect. and Surg. Sect.). Rome.
Polska Gazeta Lekarska. Lwów.
Practitioner. London.
Prensa Médica Argentina. Buenos Aires.
Presse Médicale. Paris.
Progrès Médical. Paris.
Psychiatric Quarterly. Utica, N. Y.
Psychoanalytic Quarterly. Albany, N. Y.
Public Health Reports. Washington, D. C.
Puerto Rico Journal of Public Health & Tropical Medicine. San Juan.
Quarterly Journal of Medicine. Oxford.
Radiologia Medica. Milan.
Radiology. Syracuse, N. Y.
Review of Gastroenterology. New York.
Revista da Associação Paulista de Medicina. São Paulo.
Revista de Cirurgia de São Paulo.
Revista Médica del Rosario. Rosario de Santa Fe.
Revue de Chirurgie. Paris.
Revue Médico-Sociale de l'Enfance. Paris.
Revue de la Tuberculose. Paris.
Rhode Island Medical Journal. Providence.
Riforma Medica. Naples.
Rinascenza Medica. Naples.
Rivista di Chirurgia. Naples.
Rivista di Clinica Medica. Florence.
Rivista di Clinica Pediatrica. Florence.
Rivista Italiana di Ginecologia. Bologna.
Rivista di Patologia e Clinica della Tubercolosi. Bologna.
Schweizerische medizinische Wochenschrift. Basel.
Science. New York.
Semana Médica. Buenos Aires.
South African Medical Journal. Cape Town.
Southern Medical Journal. Birmingham, Ala.
Southern Surgeon. Atlanta, Ga.
Southwestern Medicine. Phoenix, Ariz.
Sovetskiy Vrachebnyy Zhurnal. Leningrad.
Sperimentale. Florence.
Strahlentherapie. Berlin.
Surgery. St. Louis.
Surgery, Gynecology and Obstetrics. Chicago.
Texas State Journal of Medicine. Fort Worth.
Tropical Diseases Bulletin. London.
Tubercle. London.
Ugeskrift for Læger. Copenhagen.
United States Naval Medical Bulletin. Washington, D. C.
Upsala Läkareförenings Förhandlingar. Uppsala.
Vestnik Khirurgii. Leningrad.
Virginia Medical Monthly. Richmond.
Vrachebnoe Delo. Kharkov.
Western Journal of Surgery, Obstetrics and Gynecology. Portland, Ore.
West Virginia Medical Journal. Charleston.
Wiener Archiv für innere Medizin. Vienna.
Wiener klinische Wochenschrift. Vienna.
Wiener medizinische Wochenschrift. Vienna.
Wisconsin Medical Journal. Madison.
Yale Journal of Biology and Medicine. New Haven, Conn.
Zeitschrift für Geburtshülfe und Gynäkologie. Stuttgart.
Zeitschrift für die gesamte experimentelle Medizin. Berlin.
Zeitschrift für Kinderheilkunde. Berlin.
Zeitschrift für klinische Medizin. Berlin.
Zeitschrift für Krebsforschung. Berlin.
Zeitschrift für Tuberkulose. Leipzig.
Zentralblatt für Chirurgie. Leipzig.
Zentralblatt für Gynäkologie. Leipzig.

SUBJECT INDEX

This is an index to all the reading matter in THE JOURNAL. In the Current Medical Literature Department only the articles which have been abstracted are indexed.

The letters used to explain in which department the matter indexed appears are as follows: "BI," Bureau of Investigation; "E," Editorial; "C," Correspondence; "ab," abstracts; the star (*) indicates an original article in THE JOURNAL.

This is a subject index and one should, therefore, look for the subject word, with the following exceptions: "Book Notices," "Deaths," "Medicolegal Abstracts" and "Societies" are indexed under these titles at the end of the letters "B," "D," "M," and "S." State board examinations are entered under the general heading State Board Reports, and not under the names of the individual states. Matter pertaining to the Association is indexed under "American Medical Association." The name of the author, in brackets, follows the subject entry.

For author index see page 2226.

For index to Organization Section see page 101B.

A

A. I. R. (Asthma-Instant-Relief), 1741—BI
A. P. L.: See Gonadotropic Principles
ABANDONMENT of Patients: See Medicolegal Abstracts at end of letter M
ABBOTT Laboratories, commercial monopoly of proprietary name (Nembutal), 504
ABDOMEN: See also ascites
acute catastrophes, [Abell] *1241
Adhesions: See Adhesions
crises, 2009
diagnostic problems of right quadrant, [Pickhardt & Rafsky] *2048
disease, symptoms, [Mertz] 1400—ab
Distension: See Flatulence
pain, operation suppressing, [Diez] 176—ab
pain with fever in boy, diagnosis, 2158
surgery, disruption of wounds, [Glenn] 623—ab
surgery, laparotomies, pitressin (beta-hypophamine) in, [Secd] 84—ab
surgery, vesical dysfunction after abdominoperineal resection, [Hill & others] *1184
wounds (war), 1649
ABEL, JOHN J., 80th birthday, 213
ABNORMALITIES: See Fingers; Muscles
ABORIGINES of Australia, 2078
ABORTION, criminal, methods used, etc., New Zealand, 725
endocrines in relation to, [Litzenberg] *1871
etiology; treatment, 1655
habitual; vitamin E and prolan-progesterone mechanism, [Young] 314—ab
incidence, France, 885
induced, legislation, Vienna, 600
roentgen diagnosis of quintuple pregnancy, [Hamblen & others] *10
septic, tetanus after, 290
syphilis and pregnancy, 451; (reply) [Cormia] 1065
therapeutic, in chronic purpura haemorrhagica, 1146
ABRAHAM JACOBI Memorial: See Jacobi
ABRASIONS: See under Wounds
ABSCESS: See also Brain; Fallopian Tubes; Lungs; etc.
Amebic: See Liver
perinephric, renal fixation as x-ray sign, [Mathe] 1848—ab
retropharyngeal, in children, [Dintenfass] 827—ab
subphrenic, phrenic paralysis and thoracic complications, [Popa] 1586—ab
ABSORPTION: See Fat; Lymph; Resorption; Skin
ACACIA Injection: See Kidneys disease; Lungs
ACADEMY: See also American; Leopoldine; New York
of Medicine, Belgium, campaign against alcoholism, 222
of Medicine, France, (award of prize) 59; (Duhamel elected fellow) 145
of Medicine, Rome, 1467
of Physical Medicine, 1287
of Sciences, France, Dr. Martin elected to, 145
of Surgery, Paris, host to Royal College of Surgery, 966; 1464
of Tropical Medicine, 1823
ACCIDENTS: See also National Safety; Trauma
Automobile: See Automobiles
control, A. M. A. Committee on, 45
deaths from, increase, 596
Fourth of July injuries, *1806; 1818—E
Industrial: See Industrial; Workmen's Compensation Acts
prevention, study, Wisconsin, 1208
ACETARSONE: See Trichomonas vaginalis
ACETONE: See also d,l-Hydroxyacetone
in Blood: See Blood; Vomiting, acetonemic
in Urine: See Urine
industrial hazard, [McConnell] *765
ACETONEMIA: See Blood; Vomiting
ACETOPHENETIDIN intoxication (chronic), [Espersen] 2026—ab
ACETYL-BETA-METHYLCHOLINE CHLORIDE (mecholyl), effect on atonic colon, [Myerson] 239—ab
test for poisoning by atropine series, [Dameshek & Feinsilver] *1561
Treatment: See Thrombophlebitis
ACETYLCHOLINE, cardiovascular accidents after, [Sarrouy] 1082—ab
Treatment: See Labor complications; Tobacco amblyopia
ACHALASIA: See Ureters
ACHILLES Tendon: See Tendon
ACID, Acetylsalicylic Treatment: See Chorea
aminoacetic detoxicates arsphenamine, [Versari] 2108—ab
Barbituric: See Anesthesia
carbonic acid baths, [Ehrenpreis] 178—ab
Cevitamic: See also Vitamin C
cevitamic, and ketonemia, [Negri] 90—ab
cevitamic, antiscorbutic properties, [Pijoan] 909—ab
cevitamic, effect on uric acid metabolism, [Pescarmona] 1408—ab
Cevitamic, in Blood: See Blood
cevitamic, in milk, [Reedman] 988—ab
cevitamic, in vegetables vs. cooking, [Levy] 1319—ab
cevitamic, stimulates antibody formation, 714—E; [Sulzberger] 1295—C
cevitamic, synergic antigens, 589—E
cevitamic, synthetic, in neoarsphenamine therapy, [Landfisch] 854—ab
cevitamic, Tablets-Lederle, 1543
Citric, Treatment: See Trichomonas vaginalis "condition," 610
fatty, effect of injecting, on dermatitis, [Ginsberg] 2018—ab
Fatty (Vitamin F): See Acid, linoleic
Hippuric, Test: See Liver function
Hydrochloric: See Stomach acidity
linoleic and linolenic (vitamin F) in relief of common cold, [Boyd] 744—ab
Mandelic Acid, (Council report) 1989; (N. N. R.) 1989
Mandelic Acid-Mallinckrodt, 1989
Mandelic, Treatment: See Urinary Tract infection
nicotinic, isolation in crystalline form, 1203—E; (use in pellagra) [Smith & others] *2054; [Smith] 2086—C; [Funk] 2086—C
oxalic, danger of eating rhubarb leaves, 960—E
Phenylpyruvic: See Urine
Picric: See Trinitrophenol
Salicylic: See also Acid, acetylsalicylic (cross reference)
salicylic, in ointment: "Pompay"; also for psoriasis, 1142—BI; (fatal case) [Sonnicandro] 1160—ab; [Reed] 1634—C
salicylic, salicylic ester of, Salysal, 1906
sulfurous, sterility in pulp workers from, 378
tannic, compound solution, [Fantus & Dyniewicz] *200
tartaric, to destroy micro-organisms in water, [Violle] 1587—ab
Uric: See Uric Acid
ACID-BASE EQUILIBRIUM, gastric secretion and chlorides, [d'Amato] 2024—ab
ACIDOPHILUS: See Milk
Method: See Dysentery, bacillary
ACIDOSIS: See also Ketosis
resulting from sulfanilamide, 1454
ACNE, causes, 2008
treatment, antultrin-S, [Williams & Nomland] *564
ACRIFLAVINE, urinary antiseptic, [Walther] *1060
ACROCYANOSIS: See Cyanosis
ACROPARESTHESIA, angioneurosis with, 1657
ACTINOMYCOSIS, complications, pyemia, [Spangenberg] 91—ab
treatment, convalescent serum cures, [Neuber] 1240—ab
ADAMS Vapour Ointment: Menthol Salve, Painon Liniment, 2085—BI
ADDICTION: See Alcoholism; Barbiturates; Morphine; Narcotics; Phenobarbital
ADDISON'S ANEMIA: See Anemia, Pernicious
ADDISON'S DISEASE, craving for salt in patients, 1566
crisis in, simulating coronary thrombosis, [Sacks] 619—ab
diagnosis by laboratory test (salt-poor diet); also treatment, 607; 1564
diagnosis (possible), 1218
ADDISON'S DISEASE—Continued
etiology, cortical necrosis from Germanin (Bayer 205), [Wells & others] *490
lamblogenic addisonism, [Dreyfus] 1085—ab
treatment, adrenal cortex extracts, [Wilkinson] 993—ab
ADENOIDECTOMY, results, [Epstein] 462—ab
ADENOMA, thyroid, 2090
ADENOPATHY: See Lymphatic System
ADHESIONS: See also Pericarditis, adhesive; Tuberculosis, Pulmonary, artificial pneumothorax
abdominal, mineral oil poured into peritoneal cavity, 731
ADHESIVE TAPE, removal, oil of wintergreen, [Jackson & Jackson] 294—C
ADIPOSITY: See Obesity
ADOLESCENCE, acute pulmonary tuberculosis in, France, 967
national exhibit of youth welfare, Rome, 441
puberty and prognosis in rheumatic fever, [Leonard] 983—ab
ADOPTION of children, new safeguards, England, 315
ADRENALIN: See Epinephrine
ADRENALS: See also Addison's Disease
cortex cancer, estrogens in urine as test for, [Frank] *1121
cortex disease causes resorption disorders, [Verzár] 1407—ab
Cortex Extract: See Addison's Disease; Dystrophy, muscular; Tuberculosis, treatment
cortex necrosis (selective), increased frequency, [Wells & others] *490
cortex relation to pineal body, [von Kup] 2025—ab
pathology, relation to sudden death, [Simpson] 87—ab
staining reaction (specific differential), [Broster] 166—ab
tumor (malignant) in children, [Campbell] *1611
tumor, neuroblastoma metastasizing to auricle, [Doane & Solis-Cohen] *578
tumor of epinephrine producing cells (pheochromocytoma), [Wells & Boman] *1176
tumor, perirenal air insufflation, [Mencher] *1338
ADRONOL, industrial hazard, [McConnell] *764
ADVERTISING: See also Medicolegal Abstracts at end of letter M
cosmetics and soaps, A. M. A. Advisory Committee on, use of "non-allergic," 1723
radio, Canada cleans up, 1546—E
radio, General Johnson commentator for Grove Laboratories, 716—E
skin absorption of vitamins in soap, 509—E
Testimonial: See Testimonial
"Whole Milk for the Whole Family," 31
ADVISORY Board for Medical Specialties, 140
AERO Medical Association, 1645
-Otitis Media: See Otitis Media
AGE: See also Old Age
average, of graduates, *672; *673
objection to wife being older than husband? 1931
AGEUSIA: See Taste
AGGLUTINATION REACTION: See also Jaundice, spirochetal; Undulant Fever, diagnosis
cross reactions in, [Gilbert] 522—C
AGGLUTININS, concentration in typhoid vaccination, [Moor] 1579—ab
multiple, in serum in chronic rheumatoid arthritis, [Wainwright] 1396—ab
AGRANULOCYTOSIS: See Angina
AIMOTONE, 1741—BI
AIR: See also Humidity
Attacks: See Aviation
compressed, blood vessels impaired by pneumatic tools, [Junghanns] 832—ab
conditioning, A. M. A. committee to study, (second report) [Yaglou] *945; (third report) [Hayhurst & others] *1802
conditioning test for allergic, New York, 881
conditioning, toxicity of di-chloro-di-fluoromethane (Freon), 1567
Cysts: See Lungs
Embolism: See Embolism
Fresh Air Treatment: See Bronchopneumonia
Hygiene Foundation of America, 1733

AIR—Continued
insufflation (perirenal) to demonstrate adrenals, [Mencher] *1338
Passages: See Respiratory Tract
pollution, reduction, England, 143
sterilization in operating room with ultraviolet rays, [Hart] 170—ab
Traffic: See Aviation
AIRPLANE: See Aviation
ALBINISM, heredity, [Sanders] 2026—ab
ALBUMINURIA, alcohol produce? 891
fever therapy produce? [Welty] 741—ab
tests for albumin in urine, 1474
ALCOHOL: See also Alcohols; Beer; Wine
beverages on breath, 1474
coronary thrombosis, relation to [Master and others] *548
effects on automobile drivers, 1376; 2152
effects on workers with carbon disulfide, 1472
fractionation of pollen antigens, 280—E
in Blood: See Blood
in Urine: See Urine
Injections: See also Bladder ulcer; Pain, relief of; Spine cancer; Uterus cancer
injection (intraspinal) treatment, [Spangenberg] 749—ab
rôle in cardiovascular disease, [Weiss & Wilkins] *790
toxic effects, and oxidation, 891
trichinosis and, 1723—E
ALCOHOLISM: See also under Alcohol
Académie royale de médecine de Belgique campaign against, 222
acute, [Friedewald] 2101—ab
chronic, deficiency syndromes in, [Romano] 2096—ab
delirium, biologic study, 1054
delirium tremens, etiology, symptoms; treatment, [Hilton] 80—ab
diagnosis, blood alcohol determination, disinfectants for, [Gutschmidt] 471—ab
diagnosis, blood alcohol test (Widmark), 294; 976; 2152
diagnosis in railway employees, 888
in school children, 1827
report on, Illinois, 1730
treatment of hangover, 1300
ALCOHOL-RUB, 2085—BI
ALCOHOLS and their ethers, industrial hazard, [McConnell] *764
ALDRICH Gentian Violet Mixture: See Burns
ALKALOSIS, nasal tube gastric suction resulting in, [Taylor] *267
ALKAVIS, 2085—BI
ALLIMIN, 1060—BI
ALOE Short Wave Diatherm, 586; 793
ALOPECIA after permanent wave, 450
areata, neuro-endocrine apparatus in, 2153
totalis, cause; treatment, 1144
treatment, Crosley Xervac, 1635
ALTERATIVE for man and dogs, 455
ALTITUDE, High: See also Aviation
high, ammonium chloride in mountain sickness, [Barron] 824—ab
ALTMEYER, ARTHUR J.: See Index to Organization Section
ALUM Precipitated Toxoid: See Tetanus
ragweed precipitate, [Zoss] 310—ab
Spray: See Poliomyelitis
ALUMINUM Hydroxide: See Colitis, ulcerative
sulfate reduces toxicity of fluorine, [Kempf] 1157—ab
ware, reaction to fruit products, 1555
AMAUROSIS: See Blindness, idiopathic
AMEBIASIS: See also Liver, amebic abscess
blood sedimentation rate, [Cicchittos] 1588—ab
diagnosis, complement fixation reaction, [Meleney] 77—ab
incidence of chronic amebic colitis, Belgium, 372
treatment, emetine intolerance, [Lorenzo] 2108—ab
treatment, iodoform, of amebic colitis, [Scotti] 1405—ab
AMELOBLASTOMA, histology, [Robinson] 236—ab
AMENORRHEA: causation; treatment, [Frank & others] *1863
functional, [Litzenberg] *1871
treatment, ovarian extroversion for, 515; [Bailey] 1585—ab
treatment, x-ray, [Friedman] 908—ab; [Kaplan] 1755—ab
uterine infantilism with, 2090
AMERICAN: See also Pan American; list of societies at end of letter S; Index to Organization Section
Academy of Dermatology, (A. M. A. committee on establishing), 44; (organized) 1208; 1916
Academy of Ophthalmology and Otolaryngology, 1051
Academy of Orthopaedic Surgeons, 2077
Association for Advancement of Science, (exhibit, Indianapolis) 964; (symposium on syphilis) 2077
Association for Health and Physical Education, new organization, 362—E
Association for Study and Control of Rheumatic Diseases: See American Rheumatism Association
Association of Genito-Urinary Surgeons, Keyes medal to Dr. Young, 284
Board: See also Advisory Board for Medical Specialties

AMERICAN—Continued
Board of Dermatology and Syphilology, examination, 1823
Board of Obstetrics and Gynecology, examinations, 284; 1287; 2076
Board of Orthopedic Surgery, (report) 47; (examinations) 216
Board of Otolaryngology, examination, 1733
Board of Pediatrics, examination, 284
Board of Psychiatry and Neurology, (tabulated data on certification) 42, 43; (examination) 1287
Board of Surgery examination postponed, 595
Clinical and Climatological Association, 1135
College of Chest Physicians, new name for Federation of American Sanatoria, 514
College of Surgeons, 1135
Committee on Evaluation of Serodiagnostic Tests for Syphilis, 134—E; [Parran] *425; 437—E; [Kolmer] 522—C
Congress of Physical Therapy, 883
Dental Association: See Index to Organization Section
Desert Tea, 1925—BI
Dietetic Association, 1208
Farm Bureau Federation: See Index to Organization Section
Federation of Truth: See Index to Organization Section
Foundation: See Foundations
Hospital Association, 801
Hospital (Paris) needs financial help, 516
Human Serum Association organized, 366
Journal of Obstetrics and Gynecology: See Journals
Laryngological Association, Casselberry prize, 719
Medical Golfing Association tournament, 141; 1916
orthopedics—an Austrian opinion: Albert Lorenz, 361—E
Physical Education Association, 362—E
Psychoanalytic Association, meeting, 2076
Public Health Association: See also Index to Organization Section
Public Health Association—Health Education Institute, 1051
Red Cross: See Red Cross
Rheumatism Association, abstract of proceedings, 1153; 1228; 1307; 1394; 1481
Social Hygiene Association creates medal, 2075
Society of Tropical Medicine, 1823
AMERICAN MEDICAL ASSOCIATION: See also Index to Organization Section
Advisory Committee on Advertising of Cosmetics and Soaps decision on "non-allergic," 1723
Annual Congress on Medical Education and Licensure, program, 1913
Archives of Dermatology and Syphilology, recommendations on articles in, 43
Atlantic City Session, 35
Board of Trustees statement on Committee of Physicians proposals, 1816—E
care of indigent sick and, 32—E
Chemical Laboratory, (examination of American brands of sulfanilamide) 358; (Elixir of Sulfanilamide—Massengill) *1531; *1724
Committee of Physicians proposals on behalf of state medicine, 1280—E; 1728—E; (Board of Trustees statement) 1816—E
Committee on Accident Control, 45
Committee on Awards, report, 50
Committee on Establishing an American Academy of Dermatology, 44
Committee on Foods: See A. M. A. Council on Foods
Committee to Study Air Conditioning, (second report) [Yaglou] *945; (third report) [Hayhurst & others] *1802
Council on Foods, (alleged decalcifying effect of cereals) 30; (Fleischmann's Yeast) 276; (apple in diarrhea) 1636; (mineral oil in foods) 1814; (vitamin D milk produced by feeding cows irradiated yeast) 1814; (nutritional value of spinach) 1907
Council on Industrial Hygiene, 956—E; 1990—E
Council on Medical Education and Hospitals, (abstract of minutes of meetings) 156; (data on medical education) *659; (to publish list of schools of basic medical sciences) *664; (hospitals approved) 72; *683; *693; 2091; (medical school survey) 715—E
Council on Pharmacy and Chemistry, (ConDol; Ertron) 132; (Entoral) 208; (Larodon 'Roche') 209; (Edwenil) 272; 280—E; (Antitularemic Serum-Mulford) 504; (Pentobarbital Sodium-Abbott or Nembutal; commercial monopoly of name) 504; (Causalin or Causyth) 506; (dosage of vitamin A and D preparations) 507; (Vinethene) 656; (Antipneumococcic Serum, Types V and VII-Lederle) 875; (thiamin chloride as term for vitamin B_1 hydrochloride) 952; (Avertin with Amylene Hydrate) 952; (Trisodarsen, formerly Triarsen) 1125; (Viosterol, A. R. P. I. Process, in Oil) 1126; (hydroquinone as stabilizing agent in vitamin A preparations) 1454; (value of its work) 1727—E; (Pantopn 'Roche') 1813; (appreciation of Dr. Simmons) 1906; (Salysal) 1906; (mandelic acid) 1989; (benzedrine sulfate) 2064; (similar one urged for France) 2150

AMERICAN MEDICAL ASSOCIATION—Continued
Council on Physical Therapy, (fever therapy apparatus) 1041; 1044—E; (use of term "nonallergic"), 1723; (audiometers) 1812
Fourth of July injuries; first annual summary, second series, *1806; 1818—E
hospitals approved by, 72; *683; *693; 2091
Hygeia, value in writing health column for newspapers, 1937
International Congress on Dermatology and Syphilology invited to New York in 1939, 44
International Pediatric Congress invited to U. S. in 1940, 39
International Society of Gastro-Enterology invited to U. S. in 1939, 48
motion picture film on syphilis, reservations for, 958—E
Proceedings of Atlantic City Session, 35
radio broadcasts, New York City schools use, 1727—E
resolution on psychiatric research by various foundations, etc, 41
resolution on Social Security Act and applicants for blind assistance, 37
resolution on 250th anniversary of Bonomo's and Gestoni's discovery of scabies, 44
San Francisco Session, 1729; (golf special) 1916
schools for clinical laboratory technicians approved by, *709; *710
schools for physical therapy technicians approved by, *708
Scientific Exhibit, 50
Section on Dermatology and Syphilology, minutes, 43
Section on Gastro-Enterology and Proctology, minutes, 48
Section on Laryngology, Otology and Rhinology, minutes, 38
Section on Nervous and Mental Diseases, minutes, 41
Section on Obstetrics, Gynecology and Abdominal Surgery, minutes, 36
Section on Ophthalmology, minutes, 37
Section on Orthopedic Surgery, minutes, 47
Section on Pathology and Physiology, minutes, 41
Section on Pediatrics, minutes, 39
Section on Pharmacology and Therapeutics, minutes, 40
Section on Practice of Medicine, minutes, 35
Section on Preventive and Industrial Medicine and Public Health, minutes, 45
Section on Radiology, minutes, 48
Section on Surgery, General and Abdominal, minutes, 35
Section on Urology, minutes, 46
Woman's Auxiliary, news of, 366
AMINO ACIDS, essential, in nutrition, 2070—E
metabolism and gastroduodenal ulcer, [Herfort] 1764—ab
para-AMINO-BENZENE-SULFONAMIDE: See Sulfanilamide
*di*AMINODIPHENYLSULFONE: See Streptococcus infections
AMINOPYRINE, Causalin (Causyth), 506
damage by, vs. diet, [Miller] 1314—ab
derivative, Larodon 'Roche,' 209
experimental anemia, 1458—E; (correction) 1733
AMITA, 1060—BI
AMMONIUM chloride, effect in mountain sickness, [Barron] 824—ab
Iron Ammonium Citrate: See Anemia of newborn
Mandelate: See Pyuria
AMNION, dropsy, [De Snoo] 397—ab
AMNIOTIC FLUID, sweetening, induce fetus to drink by, [De Snoo] 397—ab
AMPIRIN, Elixir, 1653—BI
AMPUTATION stump infection with B. pyocyaneus, 2158
AMYL ACETATE, industrial hazard, [McConnell] *765; 2159
AMYL ALCOHOL, industrial hazard, [McConnell] *765
AMYL NITRITE antagonistic to epinephrine, 229
AMYLENE HYDRATE, Avertin with, 952
AMYLOIDOSIS, Bennhold's congo red test for, 2160
AMYTAL, effects in treating nocturnal enuresis, 1065
poisoning, picrotoxin treatment, [Kline & others] *328; [Miller] 809—C
side actions of barbitals, 508—E
ANALGESIA: See Anesthesia; Pain, relief of
ANAPHYLAXIS AND ALLERGY: See also Asthma; Dermatitis; Hay Fever; Tuberculosis; etc.
air conditioning test for patients, New York, 881
alum-ragweed precipitate, [Zoss] 310—ab
A. M. A. Advisory Committee on Advertising decision on "nonallergic," 1723
anesthesia alter allergic state? Prevent shock by anesthetic? 68
blood vessels changes in, [Ehrström] 752—ab; (in thrombosis) 2152
diagnosis, group skin tests, 155
fatal, during ether anesthesia, [Quill] *854
Food: See Food
histamine injection intensifies, [Corelli] 1765—ab
in District of Columbia, 299

ANAPHYLAXIS AND ALLERGY—Continued
menstrual allergy, [Singer] 1677—ab
sensitivity to emetine, [Lorenzo] 2108—ab
sensitivity to insulin, 732
Sensitivity to Light: See Light
sensitivity to podophyllum? 155
sensitivity to pollens but not to the seeds, 876—E
sensitivity to sodium morrhuate, [Glick] 300; [McCastor & McCastor] *1799
sensitivity to sulfanilamide, [Salvin] *1038
sensitivity to viosterol in rachitic infant, 452
serum sickness, joint pains in, 896
shock, prolonged coagulation time after, [Eagle] 536—ab
teaching, in medical schools, Association for Study of Allergy urges, 964
tissue manifestations, 2152
ANATOMY, Basle nomenclature in, 1473
exhibit of "glass man" from German Museum of Hygiene, 445
German Society, 1824
ANATOXIN: See Dysentery; Toxoid
ANCYLOSTOMIASIS: See Hookworm Infestation
ANDROGENS, 1376
excretion (daily), [Gallagher] 1670—ab; [Kenyon] 1670—ab
excretion in urine of both men and women, [Dingemanse] 913—ab; [Koch] 1312—ab
excretion in urine of children, [Dorfman] 2169—ab
testosterone propionate inhibits menstruation and ovulation, [Zuckerman] 1857—ab
treatment of prostate hypertrophy, [Champy] 912—ab
ANEMIA: See also Medicolegal Abstracts at end of letter M
blood sedimentation rate in, [Bannick & others] *1257
complicating phenobarbital treatment of epilepsy, [Maillard] 2023—ab
diagnosis, bone marrow changes in, [Weller] 1315—ab
erythroblastic (Cooley's disease), 452
experimental, 1436—E; (correction) 1733
experimental intestinal resection followed by, 1467
experimental toxic, liver treatment, [Campanacci] 395—ab
hemolytic (acute) from sulfanilamide, [Harvey & Janeway] *12; [Kohn] *1005; [Jennings] 2170—ab
hemolytic, in favism, [Hutton] *1618
hemolytic, irradiate spleen with short waves in, [Groag] 93—ab
hypochromic (microcytic) or malignant neutropenia, 524
hypochromic, syndrome, [Morrison & others] *108
in leukemia, [Beltrametti] 176—ab
iron and other "extrinsic" factors, [Weiss & Wilkins] *787
iron deficiency, of late infancy, [Fullerton] 171—ab
nutritional, stable ferrous sulfate in, [Mackay] 1674—ab
of glomerulonephritis, relation to gastric acidity, [Townsend] 2095—ab
of new-born, [Pêhu] 317—ab; (iron ammonium citrate dosage) 1146
rickets relation to, [McDonough] 167—ab
secondary, after arsphenamine, [Lieberson] 535—ab
secondary, after gastric resection, [Manizade] 2109—ab
secondary, Bucrgi's theory used in treating, [Almour] 908—ab
secondary, salt of reduced iron for, [Pijoan] 909—ab
splenic (Banti's), tuberculous splenomegaly, and liver cirrhosis, [Fittipaldi] 1084—ab
splenic, hypersplenism, [Schmidt] 751—ab
treatment, bone marrow injection, [Schretzenmayr] 996—ab
ANEMIA, PERNICIOUS, Clostridium welchii in feces in, [Goldwick] 85—ab
complications, diabetes, [McGregor] 1855—ab
craving for liver in, 1566
erythrocyte chemical composition in, 434—E
neurologic symptoms in, 523
peptic ulcer absent in, [Kahn] 1755—ab
psychoses and, [Herman] 1075—ab
treatment, congo red, [Barker] 1485—ab
ANESTHESIA: See also Medicolegal Abstracts at end of letter M
apparatus, infection with influenza from, 1218
Avertin with Amylene Hydrate, (Council report) 952; (N. N. R.) 955
barbituric acid, relation to sudden death in labor, [Montgomery] 163—ab
bibromethanol in removing urethral calculi, [Jarman] 745—ab
effect on lymphatic absorption in peritonitis, [Mengle] 166—ab
epidural injections of substances besides procaine hydrochloride, 1743
ether, evipan and lumbar, action on blood sugar, [Atnan] 751—ab
ether, fatal anaphylaxis during, [Quill] *854
ether, lipemia after, [Montanus] 1672—ab
ether, testing tolerance to, in asthmatic, 895
evipal rectal, [Hogan] 2098—ab
explosion in operating room, [Coste] 171—ab
explosion risks in, 1052
ANESTHESIA—Continued
Fulton County (Ga.) Society resolution on, 2074
general, alter allergic state? Prevent shock by anaesthetic? 68
in obstetrics, local and general in breech delivery, [Urnes & Timerman] *1616
liver function during, [Gagliardi] 1859—ab
local, amytal before procaine in dental practice, 455
local, dangers in injured male urethra, 2010; (prevention) [Knepper] 2025—ab
Pontocaine Hydrochloride, N. N. R., 433
procaine hydrochloride block, [Vishnevskiy] 1496—ab; (untoward effect on skin) 1926
spinal, headache after, [Margottini] 832—ab
vinethene, (Council report) 456; (N. N. R.) 458
ANEURIN, Jansen's term for vitamin B_1, 952
ANEURYSM, cardiac, 813
dissecting, of aorta, differentiating from coronary thrombosis, [Blackford & Smith] *262
ANGINA, Agranulocytic: See also Medicolegal Abstracts at end of letter M
agranulocytic, after aminopyrine vs. diet, [Miller] 1311—ab
agranulocytic, after arsphenamine, [Lieberson] 535—ab
agranulocytic, after prontosil flavum, [Borst] 825—ab
agranulocytic, after sulfanilamide, 515; 1128—E; [Young] 1159—ab; [Jennings] 2170—ab
agranulocytic (chronic), liver therapy, [Das Gupta] 747—ab
agranulocytic, experimental, [Kraucl] 1677—ab
agranulocytic, malignant neutropenia or microcytic hypochromic anemia, 524
agranulocytic, treatment by leukemic blood, [Bock] 2108—ab
agranulocytic, treatment of neutropenic syndromes, [Beltrametti] 176—ab
agranulocytic, treatment; 3 procedures, 886
agranulocytic, treatment, yellow bone marrow extract in granulocytopenia, [Marberg & Wiles] *1965
Vincent's, mercurial treatment, [Grove] 1580—ab
ANGINA PECTORIS, diagnostic criteria, [Riseman] 1485—ab
electrocardiographic aspects, [Froment] 1764—ab
etiology, insulin overdosage in elderly diabetics, [Jordan] 1079—ab
treatment, drug, [Riseman] 743—ab
treatment, producing new cardiac blood supply, [Feil & Beck] *1741
treatment, purine derivatives (theobromine, theophylline caffein, etc.), [Brown & Riseman] *256
treatment, surgical, O'Shaughnessy on, 965
treatment, thyroidectomy, objections, [Froment] 89—ab
ANGIOID Streaks: See Eyes fundus
ANGIOMA: See also Hemangioma
racemosum, intracranial, [Johansen] 834—ab
ANGIONEUROMYOMA, [Slepyan] 536—ab
ANGIONEUROSIS with acroparesthesia, 1657
AN-IDIN, 2005—BI
ANILINE poisoning, possible, 2158
ANIMAL EXPERIMENTATION: See also Medicolegal Abstracts at end of letter M
antivivisection's weakest point, 1275—ab
ANIMALS: See also Chickens; Dogs; Goats; etc.
laboratory rats source of Weil's disease, [Karthof] 1678—ab
laboratory, tuberculosis infection, [Nègre] 241—ab
ANKLE clonus in infant at 3 months, 1835
edema (bilateral), 297
ANKYLOSIS: See Spine
ANKYLOSTOMIASIS: See Hookworm Infestation
ANN PAGE Ice Cream Dessert Powder; Sparkle Chocolate Flavored Pudding, 1127
ANNALS of Medical History: See Journals
ANOL, Industrial's hazard, [McConnell] *764
ANTEPARTUM Care: See Pregnancy hygiene
ANTHELMINTICS: See Tapeworm Infestation
ANTHRAX, case, North Dakota, 1050
ANTI HEADACHE Tablets, 1741—BI
ANTIBODIES, antigen reactions in tuberculosis and arthritis, [Brandt] 396—ab
Edwenil, (Council report) 272; 280—E
formation (specific), cevitamic acid stimulates, 714—E; [Sulzberger] 1295—C
passive transfer; titration by neutralization, [Lippard] 903—ab
serologic, against hormones; complement fixation reaction, [Bauer] *1442
ANTI-CAPS, 1653—BI
ANTIGENS -antibody reaction in tuberculosis and arthritis, [Brandt] 396—ab
bowel, diagnostic intradermal reaction, [Paulson & Kravetz] *1860
characteristics of vitamin D, [Stcfl] 1239—ab
of hormones, 362—E
pollen, improved; alcoholic fractionation (or purification), 280—E
synergic, 589—E
virulent, of Eberthella typhi, [Aichelburg] 1588—ab
ANTIHORMONES, detected by complement fixation reaction, [Bauer] *1442
ANTIMONY Treatment: See Leishmaniasis
ANTIPASTO, botulism from, [Geiger] 466—ab
ANTIPYRINE Benzoate: See Benzopyrene
ANTISEPTICS: See also Bactericides; Disinfectants; Urinary Tract infection
action, in mice, 1368—E
Antiseptic Capsules, 1832—BI
pectin, 1283—E
properties of human milk, 1640—E
ANTISEPTINE, 1653—BI
ANTITOXIN: See Diphtheria; Streptococcus; Tetanus
ANTITULAREMIC Serum-Mulford, Council report, 504
ANTIVENENE: See Spider bite
ANTOPHYSIN: See Gonadotropic Principles
ANTUITRIN-S: See Gonadotropic Principles
ANURIA: See Urine suppression
ANUS: See also Rectum
fissure, treatment, [Weiss] 617—ab
Fistula: See Fistula
Pruritus: See Pruritus
stricture in lymphogranuloma venereum, [Redell] 2026—ab
suppositories, lycopodium granuloma from, [Antopol & Robbins] *1192
AORTA, Aneurysm: See Aneurysm
Arteriosclerosis: See Arteriosclerosis
atheroma, ulcerated infected, [Sacon] 470—ab
commissural lesion in rheumatic fever, [Gross] 307—ab
diameter, measuring, 147
Syphilis: See Aortitis, syphilitic
AORTITIS, syphilitic, [Paullin] *1123
syphilitic, staphylococcic endocarditis superimposed on, [McMillan & Wilbur] *1194
APCO No. 36 Antiseptic Suppositories, 2085—BI
APHASIA, visual, word blindness, 298
APICOLYSIS: See Tuberculosis, Pulmonary
APOMORPHIN: See Medicolegal Abstracts at end of letter M
APPARATUS: See also Anesthesia; Diathermy; Instruments; Respirator
Collens-Wilensky Intermittent Venous Occlusion, 131; [Collens & Wilensky] *2125
Crosley Xerrac, 1635
for air conditioning, [Hayhurst & others] *1802
for carrying oxygen during high flights, 516
for testing sensitivity of eye to colored light, 442
portable, for prolonged artificial respiration, [Brahdy] 2006—C
stairway, also bicycle, for heart function tests, [Xylin] *1333
suction device (simple external), [Tenopyr] 1158—ab
to produce 10 per cent carbon dioxide, [Gould & Huddleson] *1973
APPELLA Apple Powder, 1637
APPENDECTOMY, amaurosis after, [Gjessing] 1487—ab
technic, especially stump treatment, [Ochsner] 1854—ab
APPENDICITIS, acute, in children, [Allen] *121
acute, etiology, [Wangensteen] 2017—ab
chronic atypical, [Del Valle] 2024—ab
diagnosis, contraction of adductors as new sign, [Richet] 2023—ab
diagnostic problems, [Pickhardt & Rafsky] *2048
etiology, [Connell] 1311—ab
etiology, oxyuris, [Battaglia] 832—ab
Tuberculous: See Appendix tuberculosis
APPENDIX, diverticula formation, [Wunder] 1861—ab
pathology, 71
tuberculosis (primary), [Thieme] 163—ab
APPETITE, rôle in controlling weight, [Maclagan] 1837—ab
APPLE Diet: See Diarrhea
powder, Appella, 1637
sauce, (Wegner) 587; (Stokely's) 1201
ARACHNOIDITIS, chronic, after lymphocytic meningitis, [Barker & Ford] *785
opticochiasmatic, 2151
ARAUJO, LINCOLN, 147
ARCHIVES internationale des brucelloses: See Journals
of Dermatology and Syphilology: See American Medical Association
ARCTIC, research laboratory in, 1916
ARGENTINA League Against Tuberculosis center, 1139
ARGYRIA following neosilrol nose drops, 977
ARM8: See also Elbow; Hand; Shoulder; Wrist
local overgrowth, [Chandler] *1411
raising, in tuberculosis, 2009
ARMSTRONG'S Sore Throat and Quinsy Drops, 1925—BI
ARMY: See also Military; Navy; Soldiers; Veterans; War
British, physical reconstruction of substandard recruits in, 591—E; 2150
German, physical education and fitness of recruits, 1737
officers, puttees and Buerger's disease, 228
U. S. (examination for medical corps) 285; (annual medicomilitary training course) 597
ARRHENOBLASTOMA, [Föderl] 1493—ab
ARRHYTHMIA: See also Pulse, alternating cardiac, and life insurance, 892

ARSENIC: See also Medicolegal Abstracts at end of letter M
action on nails: Mees's diagonal diagnostic stripes, [Simons] 94—ab
poisoning during treatment of leukemia, [Kandel] 2168—ab
poisoning, hazards of contaminated fruits and vegetables, 135—E
poisoning, prevention, Louisiana, 364
Potassium Arsenite: See Leukemia, myelogenous
treatment, icterus after, [Graffar] 99—ab
treatment, toxic effects, [Siemens] 1580—ab
ARSENOXIDE Treatment: See Syphilis, early
d'ARSONVAL, Professor, honored, 1826
ARSPHENAMINE: See also Neoarsphenamine
bone marrow depression after, [Lieberson] 535—ab
dermatitis, [Sprafke] 1239—ab
dermatitis (exfoliative), [Epstein] •117
dermatitis, treatment, 67
jaundice after, [Soffer] 164—ab
jaundice in neurosyphilis, 152
leukocytes modified by, [de Lillo] 90—ab
sensitivity in syphilis, 228
toxicity, aminoacetic acid counteracts, [Versari] 2108—ab
treatment, central nervous system changes after, [Russell] 1673—ab
ART, medical murals at Washington fair, 719
ARTERIES: See also Aneurysm; Arteriosclerosis; Blood Vessels; Veins; etc.
Coronary: See also Arteriosclerosis, coronary; Thrombosis, coronary
coronary disease in youth vs. persons past 80, [Glendy & others] •1775
coronary, heart attacks and indigestion, 1297
coronary heart disease, prognosis, [King] 83—ab
coronary occlusion, [Wolferth] •1769
coronary, postmortem examination, [Nieuwenhuizen] 1862—ab
digital, occlusion, 1566
Embolism: See Embolism
peripheral, diseases, diagnostic methods, [von Ragha] 1861—ab
popliteal, pulse, method of obtaining, 451
pulmonary, functional systolic murmur in, [Diaz Nielsen] 1676—ab
Roentgen Study: See also Brain, blood vessels
roentgen study, accidents with contrast medium, [Garraud] 1085—ab
roentgen study, diodrast etc. in, [Bird] •1626
venous connections (congenital or spontaneous), [Rosenak] 631—ab
ARTERIOGRAPHY: See Arteries, roentgen study; Brain, blood vessels
ARTERIOSCLEROSIS: See also Medicolegal Abstracts at end of letter M
aorta atheroma, ulcerated and infected, [Sacco] 470—ab
cerebral, hypotension with headaches, 1065
cerebral, theelin therapy in climacteric, [Ault & others] •1788
coronary, producing new cardiac blood supply for, [Feil & Beck] •1781
etiology: cholesterol, [Leary] 1382—C
iliac and femoral, 2159
intermittent claudication in, [Veal] 1845—ab
mortality rates, 1537
neurologic symptoms due to, 298; (reply) [Katz] 733
"nodding spasm" or head nod, 1747
obliterans, (treatment) 730; [Collens & Wilensky] •2127; (in feet) 2067
senile, and brain degeneration, 1145
tobacco habit and, effect of lobeline sulfate, [Wright & Littauer] •649
treatment, buffered sodium citrate, [Jablons] 522—C; (reply) [Bernheim & London] 523—C
treatment, short wave, 1836
ARTHRITIS: See also Osteo-arthritis; Rheumatism
American Rheumatism Association, 1153; 1228; 1307; 1294; 1481
Ankylosing: See Spine
antigen-antibody reactions, [Brandt] 396—ab
atrophic, 152
blood sedimentation rate in, [Bannick & others] •1257
chronic, care of feet in, [Kuhns] •1108
chronic, diagnosis; cure, [Cecil] 1153—ab, 1537—ab
chronic, environment factors in, [Cobb] 1153—ab
chronic, filament-nonfilament count in, [Stein-Rich & Hartung] 696—C
chronic, gold salt therapy, [Snyder] 1307—ab; [Hartfall] 2105—ab
chronic, in children, prognosis, [Colver] 1583—ab
chronic infectious, effect of jaundice on, [Hench] 1481—ab; [Thompson] 1482—ab
chronic, multiple agglutinins in serum, [Wainwright] 1396—ab
chronic, progression of deformities, [Stump] 1396—ab
chronic, sartorius bursitis simulates, [Moschcowitz] •1362
chronic, subcutaneous nodule of, [Collins] 1465—ab
chronic, virus etiology, [Eagles] 1585—ab

ARTHRITIS—Continued
chronic, vitamin C in, [Rinehart] 1394—ab
chronic, vitamin D, C, B1 treatment, [Maliwa] 1590—ab
climate in, 1143
deformans (beginning), treatment, 528
gonococcic primary, 1920
gonococcic septicemia with, fever therapy, [Hazel & Snow] •1275
gonorrhoea (latent) cause of acute polyarticular form, [Spink & Keefer] •325
gonorrheal, in new-born after ophthalmia neonatorum, [Hoffman & Schneider] •1447; [Hurwitz] 2006—C
gonorrheal, pathogenesis, recovery; treatment, [Keefer & Spink] •1448
gonorrheal (proliferative and degenerative), [Stecher] 1230—ab
gonorrheal, roentgenography, [Nguyen-Dinh-Hoang] 628—ab
Hypertrophic: See Osteo-arthritis
menopausal, 1209
polyarthritis (acute), antiscarlatinal serum for, [Eason] 317—ab
polyarthritis subsides in pregnancy, 2161
postural defects related to, [Hartung] 2099—ab
Rheumatoid: See Arthritis, chronic
skin tests with bacteria products, [Traut] 988—ab
tissue (soft) lesions in, [Kling] 904—ab
traumatic, in workers using hammers or pneumatic tools, 722
Treatment: See also Arthritis, chronic; Arthritis, gonorrheal; Arthritis, polyarthritis
treatment, bilirubin and bile salts intravenously, 1298
treatment, Causalin (Causyth), 506
treatment, cobra venom, 1143
treatment, fever, [Simmons] 904—ab; [Stecher] 1755—ab
treatment, short wave, [Maragliano] 833—ab
treatment, surgical reconstruction of cripple, [Wilson] 1258—ab
treatment, vaccine, (discussion) 1229—ab; [Jordan] •1444
treatment, vitamin D, Cuzobel and Ettron, 132
Tuberculous: See Hip Joint
ASBESTOSIS: See Pneumoconiosis
ASCITES: See also Pick's Syndrome
in cinchophen jaundice, [Boros] •113
in hepatic cirrhosis or portal obstruction, [Fuller] 1316—ab
menstrual function relation to, [Hartwell & Johnson] •1800
ovarian fibroma with, [Rhoads & Terrell] •1681
pleural, [Goodman] •1980
treatment in person of 60, 1566
ASPERMIA, 1473
ASPHYXIA: See also Carbon Monoxide poisoning
neonatorum, initiating respiration in, [Wilson] 2103—ab
neonatorum, use of E & J Resuscitator, [Martinez] •489; (also Drinker respirator and pulmotor) [Henderson] 1561—C; [Hurlbut] 2137—C
neonatorum, use of Emerson Infant Respirator, 131
ASPIRATION: See Chyle, aspirated
Biopsy: See Biopsy
ASPIRIN: See Acid, acetylsalicylic (cross reference)
ASSAULT and Battery: See also Medicolegal Abstracts at end of letter M
ASSOCIATED Medical Services, Inc.: See Index to Organization Section
ASSOCIATION: See also American; International; list of societies at end of letter S
for Study of Allergy, committee urges instruction in allergy, 964
of American Medical Colleges, 1287
of Medical Students meeting, 2076
of Military Surgeons of United States, 882
ASTHENIA: See also Myasthenia
neurocirculatory, 730
ASTHMA, cardiac, treatment, [Smith] •646
diagnosis; treatment, 668
during and after jaundice, [Boros] •113
ether tolerance tests in patient, 895
etiology, deficient atmospheric moisture, [Parlato] 1579—ab
etiology, house dust, and abdominal distention, 892
etiology, sawdust, 525
etiology, Spanish moss, [Metzger] 1076—ab
etiology, sulfur dioxide in refrigerator repairman, [Dowling] 2020—ab
heart in, [Colton] 310—ab
nostrum, A. I. R. (Asthma-Instant-Relief), 1741—BI
premenstrual, 893
psychogenic factor in, [Strauss] 1317—ab
skin sensitivity in, [Pearson] 317—ab
treatment, Duke-Fingard method, 794—E
treatment, ephedrine sulfate and sodium or potassium iodide, [Boch] 1078—ab
treatment, theophylline with ethylenediamine, [Green & others] •1712
ASTIGMATISM: See Eyes, refraction
ASTROCYTOMAS, [Alpers] 307—ab
ASTYPTODYNE Ointment, 2137—BI
ATABRINE Treatment: See Malaria

ATAXIA, cerebellar form of poliomyelitis, [Glanzmann] 1859—ab
Friedreich's, 894
Locomotor: See Tabes Dorsalis
ATELECTASIS: See Lungs collapse
ATHEROMA: See Arteriosclerosis
ATHLETICS: See also Exercise; Physical Education
heart and, [Cooper] 316—ab
International Congress of Medicine as Applied to (first), 1137
ATHOLIN, 1925—BI
ATLANTIC CITY Session: See American Medical Association; Index to Organization Section
ATLAS Sales Company, fraudulent salesman, 216; 366
ATROPHY: See also Arthritis, atrophic; Cerebellum; Fat; Nails; Nephritis, atrophic; Nerves, optic; Skin; Stomach; Testis
muscular progressive, or lead poisoning, 2089
muscular progressive, report of studies, 1137
ATROPINE: See also Novatropine
Sulfate: See Peptic Ulcer treatment
toxicity, mecholyl test, [Dameshek & Feinsilver] •561
toxicity, mental disorders when given after insulin, [Quigley] •1363; [Quinlan] 2006—C
toxicity, psychosis after use in eye, 1931
toxicity when given orally, 813
Treatment: See Encephalitis, Epidemic, sequels; Paralysis agitans
ATTORNEYS, England's coroners to be, 515
AUDIOMETERS, requirements for Council acceptance, 1812
AUDITORY Canal: See Ear
Nerve: See Nerves
AUREX Hearing Aids, 585
AUSTRALASIAN Medical Congress, 1533
AUSTRIAN Society of Roentgenology, 968
AUTOHEMOTHERAPY: See Hemotherapy
AUTOMOBILES: See also Transportation
accidents, alcohol test in, Germany, 2152
accidents, heart lesions from blunt force, [Munck] 322—ab
accidents kill 196, 1134
accidents (road), National "Safety First" Association report, England, 442
accidents, sudden loss of consciousness as cause, 1057
accidents, tetanus bacilli in street dust, [Gilles] •484
Drivers: See also Index to Organization Section
drivers, effects of alcohol on, 1376; 2152
drivers' license, eligible for, after syphilis treatment? 1473
driving at night vs. vitamin A deficiency, [Jeghers] •2756; (correction) 965
injuries, [Straith] •940
sickness, value of prone position, [Tobler] 2172—ab
sirens, antinoise campaign, Paris, 598
traffic code, effect, New Zealand, 222
traffic safety, course on, Chicago, 363
trailer regulations, New Hampshire, 54
United Automobile Workers establish Medical Research Institute, 717
velure covered sponge rubber pad for instrument panel, [Straith] •944
AUTOPSIES: See Medicolegal Abstracts at end of letter M
AVERTIN with Amylene Hydrate, (Council report) 952; (N. N. R.) 955
AVIATION, Aero Medical Association of U. S. 1645
aeronautic medicine congress, France, 1375
air attacks, (London's water supply) 516; (national school for protection, Belgium) 596; 888; (precautions against, England) 884; 1825; (gas masks distributed, England) 1052; (gas-proof shelters in hospitals, France) 1054; (protection of food) 1291; 1825; (precautions and English government) 2078
air traffic and contagious diseases, regulations, 968
air traffic and spread of yellow fever, 719; 1204—E
nervous system (sympathetic) and, Association of Commissioned Teachers of Aeronautic Hygiene discuss, 518
oxygen carrying apparatus for high flights, 516
pilots, effect of flight on middle ear, [Armstrong & Heim] •1417
United Air Lines, Col. Tuttle medical director, 1824
AWARDS: See Prizes
AZO Dye Therapy: See Dyes
AZOOSPERMIA: See Spermatozoa
AZOTEMIA: See Blood urea

B

B I & K R, 2085—BI
B X Monthly Relief Compound; **Menstrua, etc.**, 1832—BI
BACILLEMIA: See Bacteremia
BACILLUS: See Bacteria
BACK: See also Sacroiliac Joint; Spine
Pain in: See Backache
strain, low, 299

V 1 193

BACKACHE: See also Sciatica
cystocele and, 2090
low, from episacroiliac lipoma, [Ries] 1756—ab
low, from fascia lata conditions; fasciotomy, [Ober] •554
low, from intervertebral disk lesions, [Barr & others] •1265
low, from ligamenta flava hypertrophy, [Spurling & others] •928
low, study of, [Badgley] 78—ab
BACTEREMIA: See also Septicemia; Tubercle Bacillus
hypersensitivity and focal infection, [Weisberger] 313—ab
septicemia and, 497—ab
streptococcic, [MacNeal & Cavallo] •2139
BACTERIA: See also Diphtheria; Pneumococcus; Staphylococcus; Streptococcus; Tubercle Bacillus; Typhoid, etc.
Acidophilus: See Dysentery, bacillary: Milk
brucella culture, apparatus to produce carbon dioxide, [Gould & Huddleson] •1973
colon and ketogenic diet, 228
colon content and mineral waters, 38
colon infections of urinary tract, sulfanilamide for, [Kenny] 1082—ab
colon protalbinic and vaginitis, 975
colon, protect peritoneum against infection: Steinberg method, 1457—E
colon pyelocystitis, prontosil flavum for, agranulocytosis after, [Borst] 829—ab
Duval dysentery, acidophilus diagnostic method, [Silverman] •1024
Enteritidis: See Salmonella
Friedländer's: Infections, [Raehr] 535—ab
in canned foods, [Jones] 315—ab
in cutaneous lesions, [Fasting] 1581—ab
injected in blood, renal elimination, [Ligas] 2107—ab
proteus conjunctivitis, [Zuccoli] 1320—ab
proteus infection of bladder, 2161
proteus pyelonephritis, [Hirsch & Shapiro] •953
pyocyaneus extract, action, [Adler] 916—ab
pyocyaneus infection of amputation stump, 2158
short or ultrashort irradiation modify, [Wertheim] 1496—ab
skin tests with, [Traut] 988—ab
Sulpestifer: See Salmonella sulpestifer
sulfanilamide effect on, [Bliss & Long] •1524
warfare using, 1646
welchii, formol toxoids in gas gangrene prophylaxis, [Penfold] 911—ab
welchii, type in feces, especially in pernicious anemia, [Berthrick] 85—ab
BACTERICIDES: See also Antiseptics; Blood, bactericidal power
antibactericidal effect of serums and exudates, [Hughes] 167—ab
BACTERIOLOGISTS, U. S. Civil Service examination, 883
BACTOPEPTONE: See Peptone
BAKER, NORMAN, application for radio broadcast studio rejected, 373—BI
fined—one day in jail, Iowa, 798
BAKER'S Cough Syrup, 1653—BI
BALDNESS: See Alopecia
BANANA OIL: See Amyl Acetate
BANDAGES: See Dressings
BANTI'S Disease: See Anemia, splenic
BARBITURATES: See also Amytal; Pentobarbital; Phenobarbital; and also Medicolegal Abstracts at end of letter M
addiction, [Robinson] 1760—ab
picrotoxin antagonistic to, [Krantz] 2019—ab
side actions, 508—E
BARR SW-15 Short Wave Radiothermy and Electro Surgical Unit, 951
BARUCH (Simon) Research Institute, Baudisch director, 799
BASIC Medical Sciences: See Science
BASLE nomenclature in anatomy, 1473
BASOPHILS of normal blood, length of life of, (Osgood) •953
BATHS, carbonic acid, [Ehrenpreis] 178—ab
colloid, with oatmeal and sodium bicarbonate, directions for giving, 67
contrast, for feet; use of hose instead of buckets, [Kurtz] 1654—C
BAY SHORE Brand Sieved Beef: Liver, 1201
BAYER 205: See Germanin
BCG Vaccine: See Tuberculosis, immunization
BEANS: See Soy Beans
Fava: See Favism
BECK'S Little Wonder Headache Powders, 2156—BI
BECK-KASCHIN Disease: See Osteo-Arthritis deformans
BECK-LEE De Luxe Duo-Therm, 432
BECLERE, HENRI, death, 1648
BED: See Pillows
BEE Venom Desensitization: See Edema, angioneurotic; Urticaria
venom, investigation, 1138
BEEF, sieved, Bay Shore Brand, 1201
BEER barrels, toxicity of varnish for, 454
cans, toxicity of materials used in lining, 891
heart, [Weiss & Wilkins] •790
BEES Laxative Cough Syrup, 2085—BI
BEHAVIOR after operation for skull fracture, 1659
Neurotic: See Neurosis
BEJEL: See Syphilis, endemic
BELCHING, 1838
BELLADONNA: See Encephalitis, Epidemic, sequels
BEN Arid's Desert Remedy, 1925—BI
BENNHOLD'S Test: See Amyloidosis
BENTONITE dust, 1656
BENZADON Sign: See Breast tumor
d:BENZANTHRACENE tumors in mice, [Andervont] 84—ab
BENZEDRINE, chemical formula, •2065
sulfate, Council report, •2064
sulfate, effect on hematopoietic system, [Schube] 311—ab
sulfate in chronic encephalitis, [Finkelman & Shapiro] •344
sulfate in chronic exhaustion, depression and psychoneurosis, [Wilbur & others] •549
sulfate in narcolepsy, [Ulrich] 2101—ab
BENZENE (benzol), industrial hazard, [McConnell] •764
chronic myelogenous leukemia in machinery oilers, 1376
poisoning (chronic), severe bone marrow depression after, [Lieberson] 535—ab
poisoning, latent, in factories, 722
BENZINE, industrial hazard, [McConnell] •764
BENZOPYRENE, tumoral action, 63
BENZYL Alcohol, Ampul-Viala Solution Sodium Merrhuate with, 1365
BEQUESTS: See Foundations; Hospitals
BERGAMOT, Oil of: See Oil of Bergamot
BERIBERI, decrease, Japan, 289
heart symptoms, [Weiss & Wilkins] •788; [Weiss] 986—ab
BERNARD Foundation: See Foundations
BERNARD, ROBERT, on use of Causalin (Causyth) in arthritis, 586
BESREDKA'S Vaccination: See Cancer
BEST, J. E. M. Best Patent Flour, 1455
BEVERAGES, Alcoholic: See Alcohol; Beer; Wine
Choc-Lade Chocolate Flavored Drink, 1455
Choc-Lade Dairy Drink Powder, 277
BIER, Dr., German "Nobel prize." 2002
BILE, black, opacification of gallbladder by, [Fiessinger] 830—ab
hypercholia in feces in infantile bronchopneumonia, [Galeotti-Flori] 318—ab
pigments, elimination increased in myopathies, 1467
salts treatment of arthritis, 1298
BILE DUCTS, duodenal contents inflow into, [Baastrup] 322—ab
inflammation (primary suppurative), treatment by liver rehabilitation, [Bassler] •864
obstruction, decompression after, [Ravdin] 623—ab
pathologic physiology, relation to colic, [Walters & others] •1591
perforation peritonitis, 1053
BILIARY TRACT: See also Bile Ducts; Gallbladder; Liver
obstruction, [Chasovnikov] 632—ab
surgery, postoperative care, [Payne] •1436
BILIRUBIN in Blood: See Blood
in Urine: See Urine
Test: See Liver function
treatment of arthritis, 1298
BILLINGS (Frank) lecture, [Cappa] •852
BINGHAM, WILLIAM, gift for medical center for rural physicians, Massachusetts, 717
BIO Prepared Salt, 1060—BI
BIOCHEMIST wanted for syphilis research, 1997
BIOPHYSICS, symposium, Philadelphia, 1995
BIOPSY, aspiration, and distant metastasis, [McLean] 1579—ab
aspiration, staining tissues from, [Aglialoro] 470—ab
BIRTH: See Labor
Number of Births: See Fertility
Rate: See Vital Statistics
BIRTH CONTROL activities, council to coordinate, 440
contraceptives, Mrs. Cecilia Scott fined for selling, 1994
trauma and infection from gold stem pessary, [Chobsieu & Notes] •1628
urethritis from "Gold-Tex" condom, 2009
BI-SARCOL, 2085—BI
BISMUTH in Urine: See Urine
Iodobismitol: See Syphilis treatment
leukocyte modification from, [de Lille] 90—ab
sensitivity to, in syphilitic patient, 379
Subsalicylate: See also Verruca treatment
Subsalicylate in Oil, 1343; 1989
Treatment: See Syphilis; Tabes Dorsalis; Tonsils, infected; Verruca
BITES: See also Spider
human, hand infections from, [Maier] 1399—ab
BJERRUMS Scotoma: See Scotoma
BLACKSTONE'S Tru Laxative Brouldes Quinine Cold Tablets, 2005—BI
BLADDER, cystocele and backache, 2090
cystometry in neurosyphilis, [Brodie] 1938—ab
dysfunction after abdominoperineal resection, [Hill & others] •1184
exstrophy, ureterointestinal anastomosis, [von Mikulicz-Radecki] 321—ab; [Foley] 991—ab
Fistula: See Fistula
BLADDER—Continued
functional imbalance at ureterovesical junction, [Hepler] •1602
infection (B. proteus), 2161
inflammation, cystitis with impetence, 527; (reply) [Borrell] 896
treatment in spinal injuries of war, 1288
trichomonas infestation, [Nitschke] 176—ab
tumors (malignant) in children, [Campbell] •1609
tumors, treatment, [Donohue] 1489—ab
tumors, treatment, x-ray, [Pfahler] 212—ab
ulcer, transrectal alcoholic injection, [Folsom] 621—ab
BLAIR'S Best Flour, 1127; 1201
BLANCHARD'S (Prof. Joseph) Eczema Lotion, 1653—BI
BLANTON'S Rheumatic Salve, 1741—BI
BLASTOMA, "metabolic," xanthoma in, [Biebl] 1765—ab
BLAUSTEIN Foundation: See Foundations
BLEULER, EUGEN, 80 years old, 805
BLIND, A. M. A. resolution on Social Security Act and applicants for assistance, 37
BLINDNESS, Color: See Color Blindness
decrease in children, England, 1998
"delayed action," from gas warfare, 1647
idiopathic, amaurosis after appendectomy, [Gjessing] 1487—ab
idiopathic, amaurosis after quinidine, 1829
idiopathic, tobacco amblyopia, acetylcholine and sodium nitrite for, [Duggan] •1354
Night: See Hemeralopia
of hypophysial origin, [Pesme] 1942—ab
prevention, syphilis in relation to, [Berens & Goldberg] •777
prevention, Union of Counties Associations for the Blind, report, 1209
prevention, vision conservation institute in Cuba, 1917
Trachoma Clinics of Southern Illinois, [Gradle & De Francois] •253
Word: See Aphasia visual
BLOOD: See also Hemorrhage; Hemotherapy; Serum
acetone, simple estimation, [Abels] 989—ab
Acetonemia: See Vomiting, acetonemic
alcohol, effect of coffee, [Chipman] 243—ab
alcohol, estimation, disinfecting substances for, [Gutschmidt] 471—ab
alcohol, Widmark test, 294; 976
analysis, depressed, isolatum block in, [Abrahamson] 1402—ab
Bacteria in: See also Bacteremia
bacteria injected in, renal elimination, [Ligas] 2107—ab
bactericidal power [Fajerman] 244—ab; [Baccarini] 1765—ab
Bank: See Blood conservation
bilirubin, induced hyperbilirubinemia in arthritis, [Thompson] 1482—ab
bromide in psychotic epilepsy, [Minski] 2170—ab
Cadaver's: See Blood Transfusion
calcium, treatment in order to raise or lower, [Aub] •1277
carbon monoxide normally found in, 722
carotene (serum), [Stepp] 1860—ab
carotene (serum) in diabetic, photo-electric colorimeter test, [Stuack & others] •343
Cells: See also Erythrocytes; Leukocytes
cells, culture, [Osgood] •933
cells, variations in catatonia, [Milella] 1237—ab
cevitamic acid, effect of infection on, [Faulkner] 535—ab
cevitamic acid low in rheumatic infection, [Rinehart] 1394—ab
changes in pregnancy, 886
changes in tuberculous after vitamin C and orange juice, [Radford] 1960—ab
chemistry and sedimentation in senility, [Brodin] 89—ab
chemistry, apparatus for determination of, 1146
chemistry in thyroid crisis, [Maddock & others] •2130
chemistry of erythrocytes in pernicious anemia, 434—E
cholesterol after thyroid resection, [Atnan] 1162—ab
cholesterolemia, Society of Hydrology discuss, 219
Circulation: See also Capillaries
circulation, effects of smoking on, 896
circulation, fatigue with low metabolic rate, 811
circulation, hematogenous pulmonary tuberculosis, [Zavod] •1693
circulation in venous obliterations and resections, [Fontaine] 175—ab
circulation, pump constructed like human heart demonstrates, 445
circulation to heart, produced by grafting vascularized tissues, [Feil & Beck] •1781
circulatory collapse, physiologic bases, 146
circulatory complications of diabetes, [Radnal] 751—ab
circulatory disorders from stimulating celiac plexus, [Burstein] 1313—ab
circulatory disorders in nutritional deficiency, [Weiss & Wilkins] •786
circulatory disorders, syncope after, [Herrmann] 907—ab

BLOOD—Continued
circulatory system, rôle in growing old, 1829
Clotting: See Blood coagulation
Coagulant Extract: See Hemophilia
coagulation and calcium, 1818—E
coagulation, colchicine effect on, [Loicq] 1493—ab
coagulation, determining onset and duration of, [Festen] 1408—ab
coagulation disorder (hemophilia-like) in purpura, [Tschopp] 751—ab
coagulation, prothrombin, vitamin K, [Quick] 66—C
coagulation time after histidine, [Bloch & others] *204
coagulation time (prolonged) after anaphylactic shock, [Eagle] 536—ab
coagulation, vitamin C effect on, [Terazawa] 1941—ab
Conservation: See also Blood sedimentation
conservation: "blood bank" at Cook County, [Fantus] *128
conservation with neutral sulfate of oxyquinoline for Wassermann test, 58
creatinine, Jaffe's color reaction for, value in uremia, [Popper] 915—ab
Culture: See Blood cells
discoloration in pathologic specimens, 298
Disease: See also Anemia; Angina, agranulocytic; Leukemia; Polycythemia; etc.
Donors: See Blood Transfusion
Dyscrasias: See also Anemia; Angina, agranulocytic; Leukemia; Purpura; etc.
dyscrasias, diagnosis, [Jeter] 2021—ab
epinephrine, Whitehorn test in hyperthyroidism, [Maddock & others] *2133
expelling, Esmarch's bandage for, [Holzbach] 1085—ab
fats in liver diseases, [Campana] 1084—ab
fats, lipemia curve after ether anesthesia, [Montanus] 1672—ab
fats, lipemia, plasma lipoids in, [Herbert] 1941—ab
fats, postoperative, [Boyd] 1317—ab
fats (serum) in eczema, 510—E
fats, variations of normal, [Man] 989—ab
Flow: See Blood circulation
formation, benzedrine sulfate effect on hematopoietic system, [Schube] 311—ab
formation, hematopoietic hormone in hypophysis, [Flaks] 1407—ab
formation, normal liver hematopoiesis, [Bertelsen] 244—ab
formation, punctures of hematopoietic centers in splenomegaly, [Weil] 912—ab
group tests for nonpaternity, 1929
groups; typing, 895
histamine-like constituent, [Code] 1405—ab
hormones, alleged interferometric examinations, 1659
in cancer, (specific properties) 1467; [Aron] 1675—ab; (ninhydrin reaction) [Weiss] 1944—ab
in Urine: See Hematuria
indicanemia, clinical value, [Pinelli] 831—ab
Injection: See Hemotherapy
Journal of Pathologic Haematology name changed to *Japanese Haematology*, 289
Ketonemia: See also Vomiting, ketonemic
ketonemia after epinephrine injections, [Andreis] 749—ab
ketonemia and antiketogenic action of dextrose, [Markees] 915—ab
ketonemia and vitamin C, [Negri] 90—ab
nitrogen, apparatus for determination, 1146
nitrogen (rest), increase in diabetic coma, [Göpfert] 1943—ab
of Pregnant Women: See Pregnancy
oxygen, deficit in pulmonary tuberculosis, [Vorwerk] 1161—ab
peripheral, modifications in pulmonary abscess, [Bertola] 1238—ab
phenols in, determining, 969
phosphatase and phosphorus (plasma) in fractures, [Peden] 171—ab
phosphatase (serum) in bone diseases, [Mitchell] 537—ab; [Woodard] 2167—ab
phosphatase (serum) in jaundice, [Cantarow] 464—ab
picture after pneumothorax, [Mourier] 1768—ab
picture (leukemoid), in bone marrow fibrosis, [Mettier] 307—ab
platelets after operations, [Mazzini] 629—ab
platelets, Donaggio reaction (postoperative), [Perazzo] 469—ab
platelets, essential thrombopenia, vitamin C and iron for, [Hildebrandt] 1321—ab
platelets, number, seasonal variations, [Tocantins] 905—ab
polypeptidemia (postoperative), [Ferracani] 242—ab
polypeptides in dementia paralytica, [Claude] 1237—ab
Preservation: See Blood conservation
proteins after thoracoplasty in pulmonary tuberculosis, [Lenci] 995—ab
proteins, albumin globulin quotient and Takata test, [Kaunitz] 1767—ab
proteins, homogeneity of crystalline serum albumin, 1368—E

BLOOD—Continued
proteins, hyperproteinemia and plasma cell myeloma, [Schumacher] 1757—ab
proteins, hyperproteinemia myelomatosis [Transbøl] 1322—ab
proteins hypoproteinemia in general edema, [Binger & Keith] *1
proteins (serum) changes in lymphogranuloma, [Jersild] 1862—ab
proteins (serum) in leukopenia, [Bing] 1086—ab
reticulo-endothelial system blocking effect on, [Cosentino] 1943—ab
sedimentation after pneumothorax, [Mourier] 1768—ab
sedimentation (erythrocytes), new reading, [Carez] 1493—ab
sedimentation rate (erythrocyte) in amebiasis, [Cicchittos] 1588—ab
sedimentation rate (erythrocyte), simple test; clinical value, [Bannick & others] *1257
sedimentation rate in digestive tract tumor, [Stengel] 93—ab
sedimentation rate in pulmonary tuberculosis, 1835
sedimentation rate of stored citrated blood in malignant tumors, [Koster] 1086—ab
sedimentation rate, postoperative, [Perazzo] 469—ab
sedimentation rate vs. Schilling count in rheumatic infection, 878—E
sedimentation reaction, [Worsaae] 1496—ab
sedimentation reaction in cancer, prognostic value, [Jacoby] 1162—ab
sedimentation reaction in stored blood, [Christensen] 472—ab
stream, cancer spread by, [Patey] 314—ab
Sugar: See also Diabetes Mellitus
sugar after epinephrine injections, [Andreis] 749—ab
sugar, after thyroid resection, [Atnan] 1162—ab
sugar and brain injury, 228
sugar, anesthetics effect on, [Atnan] 751—ab
sugar, hypoglycemia, [Martin] 2167—ab
sugar, hypoglycemia, dangers from giving atropine or novatropine, [Quigley] *1363; [Quinlan] 2006—C
sugar, hypoglycemia, differentiating from hyperinsulinism, 378
Sugar, Hypoglycemic Shock (Therapeutic): See Dementia Praecox; Trypanosomiasis
sugar in cancer, 1467
sugar in intermenstrual and menstrual period, [Auerbach] 1493—ab
sugar, Lupinus albus seeds effect on, [Ferrannini] 1238—ab
Testing: See also Blood group
testing (medicolegal) for human blood, precipitin serum for, 896
Typing: See Blood groups
urea, azotemia after operation, [Ferracani] 242—ab
uric acid, criticism of determination, [Pinösch] 994—ab
viscosity in hypertensive disease, 894
viscosity (serum) and Takata test, [Kaunitz] 1767—ab
vitamin A in, [Stepp] 1860—ab
vitamin A (serum) in pneumonia, [Lindqvist] 1861—ab
Vitamin C in: See Blood, cevitamic acid
Volume Index: See Erythrocytes
water content, lung regulates, [Fröhlich] 93—ab
water, postoperative variations, 1467

BLOOD PRESSURE, acetylcholine effect on, [Sarrouy] 1082—ab
business, Max Plager's, New Jersey supreme court upholds, 512
epinephrine effect on, [Grill] 94—ab
High: See also Medicolegal Abstracts at end of letter M
high arterial, and chronic pyelonephritis, [Butler] 2099—ab
high arterial, of juveniles, of sympathetic origin, [Tourniaire] 541—ab
high arterial, pseudotumoral, [Dereux] 1493—ab
high, blood viscosity in, 894
high, caused by food allergy, [Liston] 466—ab
high, diathermy applied to carotid sinus, [Gorlero Pizarro] 1161—ab
high, effect of splanchnic nerve resection, [Page] 389—ab
high, effects of sympathectomy, 973
high, epinephrine cause? [Dicker] 994—ab
high essential, denervation of renal pedicle in, [Löwenstein] 472—ab
high, Hines-Brown cold pressor test, 1563
high, in pregnancy, prognostic value of cold test, [Briggs] 393—ab
high, induced by compressing renal artery, 1640—E; 2002
high malignant, 1219
high, obstetric problem in, 1746
high, pharmacodynamic action of caffeine, [Martinetti] 395—ab
high, pheochromocytoma, [Wells & Boman] *1176
high, relation to nephritis, 2079
high, with experimental serum nephritis, [Arnott] 86—ab

BLOOD PRESSURE—Continued
low, with headaches, 1065
measuring, in pulsus alternans, 1747
posture effect on, [Wald] 1485—ab
test in pulmonary tuberculosis, prognostic value, [Kennedy] 79—ab
venous, action of theophylline with ethylenediamine on, [Greene & others] *1712
venous, variations after ingesting water, [Audap-Soubie] 1943—ab

BLOOD TRANSFUSION, action of transfused blood in surgical diseases, [Gesse] 631—ab
continuous drip in gynecology and obstetrics, [Winterton] 626—ab
donors, "dangerous" universal, [Balgairies] 317—ab
heterogenous, in gastro-intestinal diseases, [Ryss] 1410—ab
in bronchopneumonia in infants, [Murano] 1320—ab
in hemorrhage, [Fourestier] 913—ab
in obstetrics, [Black] 240—ab
in primary pneumonia, [Arena] 741—ab
intraperitoneal, [Koenen] 178—ab
of conserved blood, [Fantus] *128; [Filatov] 1410—ab
of conserved blood plasma in gynecologic hemorrhages, [Alovski] 243—ab
of leukemic blood in agranulocytosis, [Bock] 2108—ab
of stored cadaver blood, [Shamov] 1318—ab
radial pulse in, [Fourestier] 913—ab; 1587—ab
"total" in dementia praecox, [Reiter] 1862—ab

BLOOD VESSELS: See also Arteries; Capillaries; Vasomotor Mechanism; Veins
allergic changes in, [Ehrström] 752—ab
changes after roentgen irradiation, [Windholz] 1495—ab
Disease: See also Arteries; Arteriosclerosis; Phlebitis; Raynaud's Disease; Thrombo-Angiitis Obliterans; etc.
disease, Collens-Wilensky Intermittent Venous Occlusion Apparatus, (Council report) 131; [Collens & Wilensky] *2125
disease, passive exercise in diabetes, [Edelen] 907—ab
disease (peripheral), simple external suction device for, [Tenopyr] 1158—ab
disorders, angioneurosis with acroparesthesia, 1657
impairment by pneumatic tools, [Junghanns] 832—ab
impairment in scarlet fever, [Zischinsky] 1590—ab
mesenteric, occlusion, intestinal infarct from, [De Biasi] 242—ab

BLOODLETTING: See Venesection

BNA, 1473

BOARD: See American Board

BODY Build: See Constitution
Dead: See Cadaver; Cremation; Death; Embalming (cross reference)
fluids, digitalis in, [Schnitker] 1074—ab
fluids, test for alcohol in, 294
height, mystery of growth, 1056
Posture: See Posture
Weight: See also Obesity
weight, control, rôle of appetite, [Maclagan] 1857—ab
weight during and after pregnancy, [McIlroy] 86—ab; (loss during) 1658
weight reduction advisable? 893

BOGGS, RUSSELL, radiologist, tribute to, 49

BOIL: See Abscess; Furunculosis

BONE MARROW: See also Osteomyelitis
changes in diagnosing blood dyscrasias, [Weller] 1315—ab
chronic nonleukemic myelosis, [Hickling] 1406—ab
culture, [Osgood] *933
depression (severe) after arsphenamine, [Lieberson] 535—ab
eosinophilia after intravenous oil injections, [Engelbreth-Holm] 472—ab
Extract: See Angina, agranulocytic
fibrosis with leukemoid blood picture, [Mettier] 307—ab
hematopoietic hormone in hypophysis, [Flaks] 1407—ab
myelocytes in normal spleen, [Bertelsen] 1496—ab
Therapeutic Use: See Anemia; Angina, agranulocytic; Purpura haemorrhagica

BONES: See also Cranium; Joints; Orthopedics; Spine; and under name of individual bones
ash and calcium effect on ossification, 435—E
calcium stores in, increasing, [Aub] *1277
cysts (solitary) of long, [Salvati] 1239—ab
diseases causing pathologic fractures, [Ghormley & others] *2111
diseases, serum phosphatase in, [Mitchell] 537—ab; [Woodard] 2167—ab
formation of new bone in organic nervous diseases, [Voss] 243—ab
formation, promoting in fractured bone, 608
Fractures: See Fractures
Fragility: See Osteopsathyrosis
glue, infective warts in workers from, [McLaughlin] 1857—ab

BONES—Continued
grafts (onlay), simplified technic, [Harkins & Phemister] *1501
growth, multiple dysostosis, especially in twins, [Hurler] 1496—ab
healing in primordial and flat bones, [Roegholt] 398—ab
involvement (late) in prenatal syphilis, [Cole] *580
Marble: See Osteosclerosis fragilis
Osteoporosis: See Osteoporosis
pachyperiostosis of extremities, [Giomo] 542—ab
regeneration after maggot therapy, [Simon] 1758—ab
skeletal deformities in children after empyema, [Bisgard] 1077—ab
skeletal roentgen changes in congenital hemolytic jaundice, [Acuna] 1860—ab
splints, magnesium alloy, report on, 967
BONOMO, GIOVAN COSIMO, A. M. A. resolution on, 44
BOOKS: See Library; Book Notices at end of letter B
BORNHOLM Disease: See Myositis, epidemic
BOSWELL'S Hawaiian Pineapple, 1127
BOTULISM: See also Food poisoning
from European commercially canned antipasto, [Geiger] 466—ab
poliencephalomyelitis from, [Schwartz] 620—ab
BOWELS: See Intestines
BOWEN'S Disease: See Cancer, precancerous
BOWMAN-VISSCHER Test: See Pregnancy diagnosis
BP Prescription, 2005—BI
BRADY, WILLIAM, 1282—E
BRAIN: See also Cerebellum; Cranium; Head; Meninges; Nervous System; and Medicolegal Abstracts at end of letter M
abscess, treatment, 1828
Atrophy: See also Cerebellum
atrophy (circumscribed) (Pick's disease), 371
blood vessels, percutaneous arteriography, [Shimidzu] 91—ab
blood vessels, postoperative shock, [Frisch] 2109—ab
blood vessels reactions in embolism, [Villaret] 2107—ab
blood vessels, spasms, 1296
changes produced by radium exposure, [Colwell] 992—ab
complications after pneumococcus mastoiditis, vaccination, [Goldman & Herschberger] *1254
degeneration and senile arteriosclerosis, 1145
diffuse white matter gliosis in mental defectives, [Meyer] 1492—ab
disorders after epidemic parotitis, [Johansen] 244—ab
effects of depth dose in epilation irradiations of head, [Proppe] 471—ab
encephalogram (electro), 1738
encephalogram (electro) in schizophrenia during insulin shock, [Hoagland] 2096—ab
encephalography, oxygen inhalation reduces symptoms after, [Schwab] 391—ab
frontal, turning syndrome, [Halpern] 93—ab
Hemorrhage: See also Medicolegal Abstracts at end of letter M
hemorrhage after appendectomy, [Gjessing] 1487—ab
infection with Schistosoma japonicum, [Greenfield] 2104—ab
injuries and blood sugar, 228
injuries (commoner), diagnosis; treatment, [Moore] *859
lesion after fever therapy, [Hartman] *2116
lesion, Muck's epinephrine probe test, [Van Dishoeck] 2110—ab
physiology, exhibit of glass man, 446
potentials in sleep, [Blake] 1397—ab
Research Institute (new) at Georgetown, 1284
research trends at various epochs, 1648
surgery, leukotomy, technic, [Mattos Pimenta] 91—ab
tumors, angioma, [Johansen] 834—ab
tumors, diagnosis, 2151
tumors, "nodding spasm" or head nod, 1747
tumors of base, relation to pathologic sleep, [Cox] 540—ab
tumors of lateral ventricle; pneumography, [Askenasy] 2107—ab
tumors (subtentorial), fluid pressure and, [Bedford] 1080—ab
tumors, treatment, 1828
tumors, unusual signs, [Dryenforth] 1851—ab
tumors, unusual types, [Pilcher] 539—ab
BRAN to prevent constipation, [Dimock] 240—ab
BRANCHIAL APPARATUS cyst (true), [Meyer] 1851—ab
BRASS plumbing, 299
poisoning, symptoms, treatment, 972
BRAUER Operation (cardiolysis): See Pick's Syndrome
BRAZILIAN Congress of Chemistry, second, 148
Congress of Orthopedics and Traumatology (second), 720; 1466
Institute for Investigation of Tuberculosis, 596
BREAD: See Flour
BREAST: See also Nipple; Lactation
cancer, [Cramer] 740—ab
cancer at menopausal age, [Olch] 903—ab
cancer or infection of ducts, 1929
cancer, preoperative irradiation, [Cohn] 1850—ab
cancer, prognostic value of sedimentation reaction, [Jacoby] 1162—ab
cancer, research on, [Hagedoorn] 2026—ab
cancer, Skinner lecture on, 884
cancer, treatment of burning sensation after x-ray, 1930
inflammation, chronic cystic, 229; (endocrine therapy) [Lewis & Geschickter] *1894
inflammation, puerperal prevention, [von Brücke] 1322—ab
Milk: See Milk, human
pain, left inframammary, [Smith] 468—ab
tuberculosis, [Hudgins] 1235—ab
tumor, dimpling sign, [Scott] 828—ab
tumor or inflammation, new semeiologic sign, [Benzadón] 242—ab
BREATH, alcoholic beverages on, 1474
BREECH Delivery: See Labor presentation
BREWSTER'S nostrums, 1060—BI
BRIGHAM, CHARLES B., library given to U. of California, 137
BRITISH: See also Empire; Royal
Army: See Army
Association for Advancement of Science, Poulton's presidential address, 1135
Columbia Medical Association, 596
Diet: See Diet
Medical Association: See also Index to Organization Section
Medical Association, (Fracture Committe report) 57; (capitation fee) 218; (election) 596; (annual meeting) 597; (relation to public) 1553; (medal to Newland) 1555; (*Medicine Today and Tomorrow* on) 1647; (precautions against air raids) 1825
Pharmaceutical Conference: criticism of politicians, 721
***tri*BROM-ETHANOL**: See Anesthesia
BROMIDE in Blood: See Blood
intoxication, mental disorders from, [Cheavens] 1582—ab
Sodium: See Peptic Ulcer treatment
BROMINE in gastric juice, [Chatagnon] 89—ab
BROMO QUININE, Grove's Laxative, 716—E
BROMO-FOAM, 2156—BI
BRONCHIECTASIS, treatment, bilateral trilobectomy, [Overholt] *127
BRONCHITIS: See also Laryngotracheobronchitis; Medicolegal Abstracts at end of letter M
treatment, expectorants, [Brown] *268
tularemic, [Winter & others] *258
BRONCHO-ESOPHAGOSCOPY, course by Dr. Chevalier Jackson, Paris, 1137
BRONCHOPNEUMONIA, in children, fresh air treatment, [Degkwitz] 833—ab
in infants, hypercholia in feces in, [Galeotti-Flori] 318—ab
in infants, transfusion in, [Murano] 1320—ab
in leukemia, inflammatory reactions of lung, [Dreyfuss] 2107—ab
BRONCHOSCOPY, 1214
BRONCHUS, cancer, in pulmonary cancer, 443; [Mattick & Burke] 2121
cancer, pseudo-esophageal form, [Rebattu] 1237—ab
obstruction, action of theophylline with ethylenediamine on, [Greene & others] *1712
BRON-KI, 2005—BI
BROWN-HINES Cold Pressor Test: See Blood Pressure, high
BROWNS (Dr.) Baby Oil, 2085—BI
BRUCELLERGIN Test: See Undulant Fever, diagnosis
BRUCELLIASIS; BRUCELLOSIS: See Undulant Fever
BUCCONASAL Membrane: See Membranes
BUDAPEST Royal Medical Society, centenary, 1292; 2153
BUERGER'S Disease: See Thrombo-Angiitis Obliterans
BUERGI'S Theory: See Anemia, treatment
BULLETIN of Inter-Society Committee for Radiology: See Journals
BUNIONS, operations for, 891
BURBOT Liver Oil, N. N. R., 29
Liver Oil (Rowell), 29
BURDICK SWD Magnetherm, 874
BUREAU: See American Medical Association; Medical Bureau
BURKY phenomenon, synergic antigens, 589—E
BURNING Bush: See Dictamnus albus
BURNS, caustic, of eye, [Hubbard] 1231—ab
from celluloid combs igniting, [Fox] *1978
injurious, of oral mucosae from sodium perborate, 731
physiologic pathology; treatment, 1735
radial paralysis after, [Bahls] 630—ab
severe, and skin grafting, [Padgett] 618—ab
treatment, Aldrich mixture, (acriviolet-brilliant green) 813; (reply) [Jackson] 1221
treatment of redness of skin etc. after, 2011
treatment, silver nitrate and methyl rosaniline, [Branch] 1313—ab
treatment, silver nitrate ointment, [Kissmeyer] 241—ab
BURNS—Continued
treatment, tannic acid, [Fantus & Dyniewicz] *200
treatment, vitamin A applications, 145
BURSA, injection treatment, 528
BURSITIS, acute, needle irrigation for, [Patterson] 1758—ab
sartorius, simulating chronic arthritis, [Moschcowitz] *1362
treatment, sclerosing fluids in, 381
BUTANE gas stoves, necessity for effective flue in, 155
BUTTOCKS, intramuscular injection in, 300
BYARS, GEORGE, axle grease as cancer cure, 364

BOOK NOTICES

Abbott, M. E., Atlas of Congenital Cardiac Disease, 532
Abdomen, Lehrbuch der röntgenologischen Differentialdiagnostik der Erkrankungen der Bauchorgane, 817
Abdomen, Quelques vérités premières en ou soidisant telles en chirurgie abdominale, 2163
Abdomen, Operations of Surgery, 532
Accidents and Their Prevention, 457
Accidents, Rehabilitation of Persons Injured by, 1933
Adair, F. L., Maternal Care, 1301
Adsersen, V., editor, Bernhard Bang: Selected Works, 982
Advertising, radio, Poisons, Potions and Profits, 1664
Agard, W. R., Medical Greek and Latin, 159
Agnosia, Apraxia, Aphasia, 531
Akesson, S., Über Veränderungen des Elektrokardiogramms bei orthostatischer Zirkulationsstörung, 1224
Alajouanine, T., Les spasmes de la face et leur traitement, 818
Albee, F. H., Injuries and Diseases of the Hip, 1752
Alcoholism, Alkoholnachweis bei Verkehrsunfällen, 231
Alcoholism, To Drink or Not to Drink, 1752
Alexin or Complement, 232
Allen, C., Modern Discoveries in Medical Psychology, 531
Allen, F. M. B., Aids to Diagnosis and Treatment of Diseases of Children, 532
Allergy, Clinical, 1750
Allergy, Clinical, Due to Foods, Inhalants, etc., 384
Allergy, Die "atypische" Pneumonie, 386
Allergy, Little Things in Life, 457
Allergy: Practical Application, 1571
American Committee on Maternal Welfare, Maternal Care, 1301
American Dental Association, Accepted Dental Remedies, 2165
American Doctor's Odyssey, 386
American Higher Education, Surveys of, 2164
American Medical Association Bureau of Legal Medicine and Legislation, Medicolegal Cases, 458
American Medical Association Council on Pharmacy and Chemistry, Annual Reprint of Reports, 979
American Medical Association Council on Pharmacy and Chemistry, Die Drüsen mit innerer Sekretion, 900
American Medical Association Council on Pharmacy and Chemistry, New and Nonofficial Remedies, 1937, 897
American Medical Association, Work of Physicians and Medical Care, 457
American Neurological Association, Eugenical Sterilization, 458
Anatomy, Cunningham's Text-Book, 2013
Anatomy, Die Nomina anatomica des Jahres 1895 (B. N. A.) nach der . . . anatomica des Jahres (1935) (I. N. A.), 816
Anatomy of Fetal Pig, 817
Anatomy, Surgical, 982
de Andrade, G., Diagnostico dos aneurysmas da aorta thoracica, 981
Androgens, Os hormonios testiculares, 1663
Anemia, Pernicious, Le principe antipernicieux de l'estomac, 613
Anesthesia, Anestesia de base pela dialilmaloniluréa, 1303
Anesthesia, Inhalation Anesthesia, 159
Anesthesia, Local, Technic, 2093
Anesthesia, On Incidence of Anaesthetic Complications, 614
Aneurysms, Diagnostico dos aneurysmas da aorta thoracica, 981
Angina Pectoris, Les méthodes chirurgicales du traitement de l'angine de poitrine, 1753
Anthony, A. J., Funktionsprüfung der Atmung, 1392
Antimony, Ergebnisse und Fortschritte der Antimontherapie, 1149
Antonov, A. M., K ycheniyu o ganglionevromakh tsentralnoy nervnoysistemy, 1750
Anus, Synopsis of Ano-Rectal Diseases, 736
Aphasia, Value in Cerebral Localization, 531
Arrhythmia, Klinische Elektrokardiographie, 737
Art, Tableau de la caricature médicale depuis les origines jusqu' à nos jours, 76
Arteries, Diagnóstico anátomo-topográfico de la obstrucción arterial coronaria, 817

109
37

Book Notices—Continued
Aschoff, L., editor, Veröffentlichungen aus der Konstitutions- und Wehrpathologie, 1392
Asthenia, Veröffentlichungen aus der Konstitutions- und Wehrpathologie, 1392
Asthma, Bacterial Flora of Respiratory Tract in, 898
Athletics, What Every Athlete Should Know, 1663
Atkinson, D. T., Ocular Fundus in Diagnosis and Treatment, 75
Aubertin, M. E., Le traitement du diabète infantile par l'insuline, 980
Australian Cancer Conference (Seventh), Report, 1304
Automobile accidents, Alkoholnachweis bei Verkehrsunfällen, 231
Automobile, Safe Driving: Human Limitations, 73
Autopsy Diagnosis and Technique, 459
Autopsy, Post-Mortem Appearances, 1479
B. N. A., Die Nomina anatomica, 816
Babonneix, L., Les régimes chez l'enfant, 735
Baby Epicure, 1148
Bacmeister, A., Die klimatische Behandlung der Tuberkulose, 1389
Bacteria, Dictionnaire des bactéries pathogènes, 614
Bacteriology of Specific Communicable Disease, 980
Bacteriology, Text-Book (Fairbrother) 1842
Bacteriology: Text-Book of Micro-organisms (Tanner), 1661
Bacteriology, Travaux pratiques de bactériologie, 1070
Bang, Bernhard: Selected Works, 982
Barclay, A. E., Digestive Tract, 383
Barker, L. F., Live Long and Be Happy, 734
Barnes, T. C., Laboratory Manual of General Physiology, 1752
Barnes, T. C., Textbook of General Physiology, 2165
Bauer, W. W., Health Questions Answered, 1479
Bazilevich, I. V., Naris klinichnoi fermentologii, 304
Beck, S. J., Introduction to Rorschach Method, 1478
Béclère, C., Les hémorragies utérines avant et après la ménopause, 74
Bedford, T., Modern Principles of Ventilation and Heating, 1068
Behavior, Human Machine, 530
Bell, A. J., Feeding, Diet and the General Care of Children, 160
Bell, G. H., Experimental Physiology, 615
Bennett, C., Hypnotic Power, 1305
Bérard, M., Les méthodes chirurgicales du traitement de l'angine de poitrine, 1753
von Bergmann, G., Funktionelle Pathologie, 457
Best, C. H., Physiological Basis of Medical Practice, 230
Beumer, H., Über die Ernährung des Säuglings, 538
Bick, E. M., Source Book of Orthopaedics, 232
Bieling, R., Entstehung und biologische Bekämpfung typischer Infektionskrankheiten, 737
Bigger, J. W., Handbook of Hygiene, 1934
Biliary Tract, Analyse physique des calculs, 2092
Biliary Tract, Diagnosis and Treatment of Diseases of, 302
Bing, R., Lehrbuch der Nervenkrankheiten in 30 vorlesungen, 1148
Biochemistry, Annual Review, 1750
Biochemistry, Einführung in die allgemeine Biochemie, 1070
Biochemistry, Manuel de biochimie, 897
Biochemistry, Textbook of Applied Biochemistry, 1571
Biocolloids, Traité de biocolloïdologie, 1301
Biological Assaying, Manual, 735
Birch, C. L., Hemophilia, 737
Birth Control, Marriage and Periodic Abstinence, 160
Bitting, A. W., Appertizing or the Art of Canning, 1662
Black, M. D., Glasgow Royal Maternity and Women's Hospital, Medical Report, 383
Blackwater Fever: Historical Survey, 1751
Bladder, Les péricystites, 2092
Blood, Alkoholnachweis bei Verkehrsunfällen, 231
Blood circulation, Failure of Heart and Circulation, 1661
Blood, circulatory disorders, Pathologie und Therapie des peripheren Kreislaufes, 614
Blood Groups of Bantu of Southern Africa, 531
Blood, Leitfaden der Blutmorphologie, 459
Blood, Mikromethodik, 1572
Blood Pressure, Cure of High Blood Pressure by Respiratory Exercises, 530
Blood Pressure, Der Blutdruck des Menschen, 532
Blood Pressure, High Blood Pressure, 1389
Blood Pressure, high, Pathologie und Therapie des peripheren Kreislaufes, 614
Blood Pressure, Maladie hypertensive et syndromes d'hypertension, 1391
Blood sugar, Les hyperglycémies, 1304
Blood Vessels, Die Herz- und Gefässkrankheiten, 735
Blood Vessels, Physiology and Pathology of, 1225
Blood Vessels, Quelques vérités premières (ou soi-disant telles) en pathologie cardiovasculaire, 1572
Bloomfield, J. J., Evaluation of Industrial Hygiene Problems, 1150
Blumer, G., editor, Practitioners Library, 75
Böhmert, W., Untersuchung über die Todesfälle an Krebs, 1223
Böhning, F., Diphtherie und Konstitution, 1068
Bogert, L. J., Dietetics Simplified, 734
Boisen, A. T., Exploration of Inner World, 530
Bomskov, C., Methodik der Hormonforschung, 979
Bone Marrow, Die Sternalpunktion als diagnostische Methode, 230
Bonnet, H., Travaux pratiques de bactériologie, 1070
Bonteckoe, Cornelis, Opuscula selecta Neerlandicorum de arte medica, 1225
Bordet, E., Radiokymographie du cœur et des valsseaux, 1388
Bosco, G. A., Diagnóstico anátomo-topográfico de la obstrucción arterial coronaria, 817
Boyd, W., Introduction to Medical Science, 737
Brahdy, L., editor, Trauma and Disease, 1224
Brain, Agnosia, Apraxia, Aphasia: Value in Cerebral Localization, 231
Brain, Normal Encephalogram, 1391
Brain, tumors of, Archiv und Atlas der normalen und pathologischen Anatomie in typischen Röntgenbildern, 458
Brash, J. C., editor, Cunningham's Text-Book of Anatomy, 2013
Briest, K., Lungentuberkulose in Verbindung mit anderen Erkrankungen, 1934
Brigance, W. N., Your Everyday Speech, 160
Bright, Richard, Original Papers on Renal Disease, 161
British Health Resorts, 615
British Masters of Medicine, 459
Brock, S., Basis of Clinical Neurology, 1479
Bromberg, W., Mind of Man, 1388
Bronchitis, Bacterial Flora of the Respiratory Tract in, 898
Bronchus, Tuberkulez legkikh i yatcheiya narusheniya bronkhialnoy prokhodimosti, 1752
Brook, G. B., Experimental and Clinical Studies of Spine of Dog, 615
Brookes, H. S. Jr., Textbook of Surgical Nursing, 2165
Brown, E. L., Physicians and Medical Care, 457
Brugsch, T., Ganzheitsproblematik in der Medizin, 1068
Brumpt, E., Précis de parasitologie, 612
Bull, H. B., Biochemistry of Lipids, 899
Burnet, F. M., Use of Developing Egg in Virus Research, 384
Burns, B. H., Recent Advances in Orthopaedic Surgery, 73
Business Side of Medical Practice, 1479
Caduceus, Serpents in Symbolism, 75
Calmette, A., L'infection bacillaire et la tuberculose, 736
Cameron, A. T., Recent Advances in Endocrinology, 736
Campbell, R., Aids to Pathology, 1478
Cancer and Diet, 2013
Cancer, Carcinoma of Female Genital Organs, 898
Cancer, Culture des tissus et cancer, 1391
Cancer Conference on Radio-Therapeutic Departments in General Hospitals, 1390
Cancer, Report of the Seventh Australian Cancer Conference, 1304
Cancer Research, Principles and Foibles of, 1305
Cancer, Untersuchung über die Todesfälle an Krebs, 1223
Canned Foods, Nutritive Aspects, 818
Canning, Appertizing or the Art of, 1662
Canuyt, G., Les maladies du pharynx, 1476
Carbohydrates, Oxidation in Acid Solution, 1069
Cardiovascular System, Clinical Roentgenology, 74
Carnegie Foundation for Advancement of Teaching, Examinations and Their Substitutes, 385; Surveys of American Education, 2164
Carrillo, E. G., La thyroidectomie totale dans le traitement de l'insuffisance cardiaque et de l'angine de poitrine, 1149
Carter, J. B., Fundamentals of Electrocardiographic Interpretation, 897
Cataract: Its Preventive and Medical Treatment, 1225
Cataract, Senile: Methods of Operating, 303
Cathcart, E. P., Dietary Survey, 1070
Cerebrospinal Fluid, Cytologie du liquide céphalo-rachidien normal, 899
Cerebrospinal Fluid, Osmoty Ikovorlogii, 1662
Chabanier, H., Diabète et chirurgie, 2165
Chalmers, L. W., Intimate Side of Woman's Life, 614
Chapin, F. S., Research Memorandum on Social Work in the Depression, 2163
Character, What It Means to Grow Up, 980
Charterhouse Rheumatism Clinic, 2092
Chatterjee, S., Malaria Medica, 981
Chemical Physiology, Essentials (Halliburton), 1390
Chemistry, Man in a Chemical World, 960
Chemistry, Mikromethodik, 1572
Chemistry of Food and Nutrition (Sherman), 531
Chemistry, Out of The Test Tube, 898
Chemistry, Physiological (McClendon), 1070
Chemistry, Physiological (Wilson), 1068
Chemistry, physiological, Einführung in die chemische Physiologie, 1751
Chemistry, Quantitative Pharmaceutical, 2093
Chenet, W. F., Diagnosis and Treatment of Diseases of Stomach and Intestines, 736
Chenoweth, L. B., School Health Problems, 613
Child Guidance, Personality and Cultural Pattern, 1569
Children, Feeding, Diet and General Care of, 160
Children, Feeding Our Children, 1150
Children Handicapped by Cerebral Palsy, 1225
Children, Quelques vérités premières (ou soi-disant telles) en chirurgie infantile, 529
Children, Reading, Writing and Speech Problems, 302
Children, Studies in Sibling Rivalry, 980
Chiropody, Toe Casting and Liquid Rubber Technic, 981
Cholesterol, Une forme cérébrale de la cholestérinose généralisée, 2014
Cisterna Magna, Experimental and Clinical Studies of Spine of Dog, 615
Clemensen, C. E., Deficiency of A Vitamin and Visual Dysadaptation, 737
Climate, Die klimatische Behandlung der Tuberkulose und ihre heutige Bewertung, 1389
Clinical Medicine, System of (Savill), 158
Cobb, W. F., Everyday First Aid, 1151
Coignard, J., Spectacle of a Man, 2164
Colon as a Health Regulator, 157
Combustion, Spontaneous: Literary Curiosity, 1934
Committee on Costs of Medical Care, Physicians and Medical Care, 457
Communicable Disease, Bacteriology of, 980
Complement or Alexin, 232
Conybeare, J. J., editor, Textbook of Medicine, 304
Cooksley, F. A., History of Medicine in State of New York and County of Monroe, 532
Coroners' Physicians, Autopsy Diagnosis and Technique, 459
Corpus Luteum Hormone, Studies and Investigations Into, 736
Cosmetic Dermatology, Dictionary of Ingredients, 232
Cosmetics, Take Care of Yourself, 532
Costler, A., Encyclopaedia of Sexual Knowledge, 532
Cough, La toux, 1068
Crossen, H. S., Synopsis of Gynecology, 1932
Csallner, C. H., Das Geschlechtsleben, 531
Culotta, A., La tosse, 1068
Cunningham's Text-Book of Anatomy, 2013
Currie, J. M., Manual of Public Health: Laboratory Practice, 982
Curseiji, J. J., Assessment of Risks in Life Assurance Practice, 1572
Damm, P. N., Menstruationsstörungen hormonalen Ursprungs, 737
Davidoff, L. M., Normal Encephalogram, 1391
Davis, A. E., Cataract, 1225
Davis, M. M., Public Medical Services, 815
Dawkins, C. J. M., Incidence of Anaesthetic Complications, 614
Deafness, Hearing and Speech in Deaf Children, 1148
Deafness, Use of Hearing Aids, Reports of Committee, 529
Dent, J. Y., Human Machine, 530
Dental Remedies, Accepted, 2164
Dental Students, Surgery for, 1392
Dentistry, Public Health, Principles and Practice, 1663
Dermatology, Common Skin Diseases, 1148
Dermatology, Cosmetic, 232
Dérot, M., Les hépatonéphrites, 385
Dextrose Therapy in Everyday Practice, 1664
Diabetes: A Modern Manual, 982
Diabetes Mellitus, Diabète et chirurgie, 2165
Diabetes Mellitus, Le traitement du diabète infantile par l'insuline, 980
Diabetes Mellitus, Léceni diabetu, 1150
Diabetes Mellitus, Treatment of Joslin), 383
Diabetes Mellitus, Über einige neue Arzneimittel, 982
Diagnosis, Clinical, Der klinische Blick, 818
Diagnosis, Diagnostics of Pain, 615
Diagnosis, Manual of Radiological Diagnosis, 160
Diagnosis, Medical Diagnosis, 615
Diagnosis, Physical Diagnosis (Major), 232
Diagnosis, Physical Diagnosis (Sutton), 1569
Diagnostic Roentgenology, Textbook, 2092
Diathermy, Kurzwellentherapie, 817
Dictionary, Dictionnaire des bactéries pathogènes, 614
Dictionary of Ingredients; Cosmetic Dermatology, 232
Diet, Cancer and Diet, 2013
Diet, Les régimes chez l'enfant, 735
Diet, Nutritive Value of Indian Foods and planning of Satisfactory Diets, 385
Diet, Your Diet and Your Health, 1226
Dietary Survey in Terms of Actual Foodstuffs Consumed, 1070
Dietetics, Pediatric, 1148
Dietetics Simplified, 734

V 1
193

Book Notices—Continued
Digestive Tract: Radiological Study, 383
Digitalis, Digitalisfibel für den Arzt, 818
Digitalis, William Withering, 303
Diphtheria, Diphtherie und Konstitution, 1668
Diphtheria, Dosage of Antitoxin in, Report of Departmental Committee, 736
Disease and the Man, 2165
Disease, Introduction to Medical Science, 737
Disease, Trauma and, 1224
Dispensatory of United States, 158
Dixon, W. E., Manual of Pharmacology, 1067
Dog, Experimental and Clinical Studies of Spine, 615
Dominici, P., Les péricystites, 2092
Donzelot, E., Quelques vérités premières (ou soi disant telles) en pathologie cardiovasculaire, 1572
Douglas, C. G., Human Physiology, 458
Dressler, W., Klinische Elektrokardiographie mit einem Grundriss der Arrhythmien, 737
Drugs, Arzneiverordnungen, 1070
Dryerre, H., Aids to Physiology, 2093
Duhem, P., Précis de physiothérapie clinique, 1389
Dumas, A., Maladie hypertensive et syndromes d'hypertension, 1391
Durfee, C. H., To Drink or Not to Drink, 1752
Dust of Our Time, 533
Dyachenko, S. V., editor, Urovskaya bolezn v Zabaykale. Vypusk vtoroy, 1664
Dyes, O., Archiv und Atlas der normalen und pathologischen Anatomie in typischen Röntgenbildern, 458
Dyson, J. N., Practice of Ionization, 1663
Ear, Diseases of the Nose, Throat and Ear, 900
Ear, Practitioners Library, 75
East, T., Failure of the Heart and Circulation, 1661
Economic Depression, Research Memorandum on Social Aspects, 2161
Economic Problems of Modern Life, 304
Economics, Business Side of Medical Practice, 1479
Economics, For Peace and Good, 981
Eddy, C. E., Physical Aspects of Radium and Radon Therapy, 1842
Eddy, W. H., Avitaminoses, 158
Edens, E., Digitalisfibel, 818
Education, Medical, Physicians and Medical Care, 457
Eells, W. C., Surveys of American Higher Education, 2164
Eggs, Use of Developing Egg in Virus Research, 1584
Electricity, Die bioelektrischen Erscheinungen der Hirnrindenfelder, 386
Electrocardiographic Interpretation (Carter), 897
Electrocardiography, Clinical (Lewis), 2013
Electrocardiography (Maher) 1223
Electrocardiography, Über Veränderungen des Elektrokardiogramms bei orthostatischer Zirkulationsstörung, 1224
Elliott, J., Scalpel and Sword, 160
Elsdon-Dew, R., Blood Groups of Bantu of Southern Africa, 531
Embryology, Textbook of, 1149
Encephalogram, Normal, 1391
Encyclopedia of Sexual Knowledge, 532
Endocrine, Chemie der Inkrete und ihre wichtigsten Darstellungsmethoden, 1842
Endocrines in Obstetrics and Gynecology, 1840
Endocrines, Methodik der Hormonforschung, 979
Endocrinology: Clinical Application and Treatment, 1661
Endocrinology, Recent Advances in, 736
Endoscopy of Uterus, Atlas gisteroskopii v akusherstve, 304
English, O. S., Common Neuroses of Children and Adults, 2013
Environment, Human Genetics and Its Social Import, 612
Enzymes, Die Fermente und ihre Wirkungen, 1669
Ephraim, J. W., Take Care of Yourself, 532
Epilepsy, Die Veranlagung zu Krampfanfällen, 159
Erlanger, J., Electrical Signs of Nervous Activity, 1224
Ernst, J., Hautdesinfektionsprobleme, 889
Ethics, Medical, Introduction to General Practice, 736
Everett, M. R., Oxidation of Carbohydrates in Acid Solution, 1669
Ewing, A. W. G., Use of Hearing Aids, 529
Examinations and Their Substitutes, 385
Exanthemata, Acute, History of, 75
Exercise; corrective, Kinesiology, 2093
Exercises, Respiratory, Cure of High Blood Pressure by, 530
Exercises, Technique of Underwater Exercises, 1226
Eyes, Atlas der Augenkrankheiten, 160
Eyes, Hand-book of Ocular Therapeutics, 531
Eyes, Internal Diseases and Atlas of Ophthalmoscopy, 231
Eyes, Ocular Fundus in Diagnosis and Treatment, 75
Eyes, Practitioners Library, 75
Faarup, C., Nogle Undersøgelser over Widalreaktionen ved Tyfus og Paratyfus, 818
Facial Neuralgias, 303
Fairbrother, R. W., Text-Book of Medical Bacteriology, 1842
Falkiner, N. N., Tweedy's Practical Obstetrics, 1571
Falls, F. H., Obstetric and Gynecologic Nursing, 2014
Family Care of Mental Patients, 529
Feeblemindedness, Etiology of Mental Deficiency, 1478
Feeding Our Children, 1150
Ferments, Naris klinichnoi fermentologii, 304
Ferri, N. A., Behavior of Health, 75
Fetus, Anatomy of Fetal Pig, 817
Fieser, L. F., Chemistry of Natural Products Related to Phenanthrene, 159
Fiessinger, N., Quelques vérités premières (ou soi-disant telles) sur les maladies du foie, 1570
First Aid, Everyday, 1151
Fischgold, H., Radiokymographie du coeur et des vaisseaux, 1388
Fishbein, M., Your Diet and Your Health, 1226
Fishberg, A. M., Heart Failure, 1151
Fisher, W. A., Ophthalmoscopy, Retinoscopy and Refraction, 303
Fisher, W. A., Senile Cataract, 303
Flexner, J. T., Doctors on Horseback: Pioneers of American Medicine, 1934
Food, Appertizing or the Art of Canning, 1662
Food, Canned, Nutritive Aspects of, 818
Food, Chemistry of (Sherman), 534
Food, Clinical Allergy, 384
Food, Dietary Survey in Terms of Actual Foodstuffs Consumed, 1070
Food, Little Things in Life, 457
For Peace and Good: Handbook of Contemporary Politics, 981
Ford, F. R., Diseases of Nervous System in Infancy, Childhood and Adolescence, 2164
Forel, August, Out of My Life and Work, 1933
Fox, R. F., editor, British Health Resorts, 615
Fractures, Modern Treatment, 979
Frew, R. S., Disease in Childhood, 385
Frey, W., Die Herz- und Gefässkrankheiten, 735
Fridman, A. P., Osnovy Bikrovologii, 1662
Friedman, L. J., Textbook of Diagnostic Roentgenology, 2092
Gadé (Dr. F. G.) pathologisk-anatomiske laboratorium i Bergen, 1912-1935, 737
Ganglioneuromas, K. ychenlyu o ganglionevromakh tsentralnoy nervnoysistemy, 1750
Gantt, W. H., Russian Medicine, 1932
Ganzlinprobematik in der Medizin zugleich eine Einführung in die medizinische Erkenntnislehre, 1068
Gartland, R. M., Psychiatric Social Service in a Children's Hospital, 1149
Gastroscopy: Endoscopic Study of Gastric Pathology, 1569
Gellhorn, E., La perméabilité, 231
Genetics, Human Genetics and Its Social Import, 612
Genetics, Spontane und strahleninduzierte Mutabilität, 1662
Genetics, Wissenschaftliche Forschungsberichte, 1478
Genital Organs, Female, Carcinoma of, 898
Germany, Concept of Social Medicine, 1779-1932, 615
Gersh, A. B., Occupational Hazards and Painter, 74
Gervois, M., Le bacille de type bovin dans la tuberculose humaine, 1570
Gifford, S. R., Handbook of Ocular Therapeutics, 531
Gignoux, J. E., What Every Athlete Should Know, 1663
Gildersleeve, E., Baby Epicure, 1148
Giorgacopulo, D., Le varici, 386
Glandular Physiology and Therapy, Die Drüsen mit innerer Sekretion, 900
Glasgow Royal Maternity and Women's Hospital, Medical Report, 383
Glorieux, P., La spondylolyse et ses conséquences, 1223
Gogle, G. R., Workbook in Health, 816
Goiter, Medizinische Praxis, 1667
Gómez, V., Cirugía reparadora de las lesiones de los nervios periféricos, 74
Gonorrhea, Lehrbuch und Atlas der Haut- und Geschlechtskrankheiten, 882
Goodman, J., Antarctic Dermatology, 232
Gordon, S. M., editor, Accepted Dental Remedies, 2165
Gray, H. M. W., Colon as a Health Regulator, 737
Greek, Medical Greek at a Glance, 159
Greinedер, K., Tomographische Diagnostik der tuberkulösen Kaverne, 1479
Griffith, J. P. C., Diseases of Infants and Children, 1076
Grinker, R. R., Neurology, 1476
Grote, L. R., editor, Medizinische Praxis, 1667
Guedel, A. E., Inhalation Anesthesia, 159
Guiding Your Life with Psychology as Key, 1388
Gunn, J. A., Introduction to Pharmacology and Therapeutics, 386
Gutzeit, K., Die Gastroskopie, 1751
Gymnastics, Underwater, Technique, 1226
Gynecologic Nursing, 2014
Gynecology, Endocrines in, 1840
Gynecology, Synopsis of, 1932
Hall, I. S., Diseases of the Nose, Throat and Ear, 900
Hallibourton, W. D., Essentials of Chemical Physiology, 1390
Hamilton, J. R., Safe Driving, 73
Harris, I., High Blood Pressure, 1389
Harris, L. J., Vitamins, 531
Harris, W., Facial Neuralgias, 303
Hartwell, H. A., Dust of Our Time, 533
Hauduroy, P., and others, Dictionnaire des bactéries, 614
Hawley, G., Kinesiology of Corrective Exercise, 2093
Hay Fever, Treatment by Intranasal Ionization, 230
Health and a Day: Addresses, 1664
Health, Behavior of, 75
Health, British Health Resorts, 615
Health, National Health Series, 20 volumes, 613
Health Protection of Welders, 614
Health, Public, Beri'uth Ha-zibur, 900
Health, public, Ezrah Rishonah: Sefer shimmushi lekol adam, 900
Health, Public, Manual of: Laboratory Practice, 982
Health, public, Sanitariuth, 900
Health Questions Answered, 1479
Health, School Health Problems, 613
Health, Take Care of Yourself, 532
Health, Workbook for High School Girls, 816
Hearing Aids, Use of, Reports of Committee, 529
Hearing and Speech in Deaf Children, 1148
Heart, Allgemeine Elektrokardiographie, 816
Heart, Das Reizleitungssystem und die Nerven des Säugetierherzens, 1224
Heart, Der Myokardinfarkt, 1225
Heart, Die Herz- und Gefässkrankheiten, 735
Heart Disease (White), 1504
Heart disease, Atlas of Congenital Cardiac Disease (Abbott), 532
Heart disease, Development of Cardiac Enlargement in Disease of the Heart, 1750
Heart disease, La thyroidectomie totale dans le traitement de l'insuffisance cardiaque et de l'angine de poitrine, 1149
Heart, Electrocardiographic Interpretation (Carter), 897
Heart, Electrocardiography (Lewis), 2013
Heart, Electrocardiography (Maher), 1223
Heart Failure, 1151
Heart, Failure of Heart and Circulation, 1661
Heart, Klinische Elektrocardiographie mit einem Grundriss der Arrhythmien, 737
Heart, Physiology and Pathology, 1225
Heart, Quelques vérités premières (ou-sol-disant telles) en pathologie cardiovasculaire, 1572
Heart, Radiokymographie du coeur et des vaisseaux, 1388
Heart, Über Veränderungen des Elektrokardiogramms, bei orthostatischer Zirkulationsstörung, 1224
Heart, Zehn Vorlesungen über Kymographie, 1392
Heating, Modern Principles, 1668
Heilmeyer, L., Das Serumeisen und die Eisenmangelkrankheit, 1842
Heiser, V., American Doctor's Odyssey, 386.
Hemophilia, 737
Henriksen, S. D., Studies on the Bacterial Flora of the Respiratory Tract, 898
Heredity, Human Genetics and Its Social Import, 612
Hertzler, A. E., Surgical Pathology of Thyroid Gland, 900
Hertzler, A. E., Technic of Local Anesthesia, 2093
Heubner, W., editor, Arzneiverordnungen, 1070
Hewitt, J. A., Essentials of Chemical Physiology, 1390
Higginson, G., Autonomic Neuro-Effector Systems, 1392
Hill, C.: What is Osteopathy? 2162
Hip, Injuries and Diseases of the Hip, 1732
Hirschman, L. J., Synopsis of Ano-Rectal Diseases, 736
Histology, Handbook of Microscopical Technique, 1150
Hochrein, M., Der Myokardinfarkt, 1225
Hodann, M., History of Modern Morals, 158
Hoffman, F. L., Cancer and Diet, 2013
Hoffmann, K., Alkoholnachweis bei Verkehrsunfällen, 231
Holcomb, R. C., Who Gave the World Syphilis? 157
Hollender, A. R., Physical Therapeutic Methods in Otolaryngology, 160
Holmes, E., Metabolism of Living Tissues, 615
Holmes, H. N., Out of the Test Tube, 898
Holmes, S. J., Human Genetics, 612
Holt, J. G. H., Marriage and Periodic Abstinence, 160
Hoppe, A. W., Manual of Operating Room Procedures, 736
Horder, Lord, Health and a Day: Addresses, 1664
Hormones, Little Things in Life, 457
Hormones, Vitamins, Minerals and, 231
Hospital, American and Canadian Hospitals, 1933
Hospital, Glasgow Royal Maternity and Women's Hospital, Medical Report, 383
Hospital, psychiatric, Practical Psychology for Nurses and Other Workers, 1477

Book Notices—Continued
Hospital, Psychiatric Social Service in a Children's Hospital, Chicago, 1149
Howard, (Mrs.) H., Seamen's Handbook for Shore Leave, 1664
Hoyle, C., Chronic Miliary Tuberculosis, 1842
Hueck, W., Morphologische Pathologie, 1476
Human Machine, 530
Humphris, F. H., Emanotherapy, 1840
Hyde, R. R., Laboratory Outline in Filterable Viruses, 303
Hygiene, Fundamentals of Personal Hygiene, 160
Hygiene, Handbook of, 1934
Hygiene, Intimate Side of a Woman's Life, 614
Hypnotic Power, 1305
I.N.A., Die Nomina anatomica, 816
Ibáñez Benavente, A., Cirugia reparadora de las lesions de los nervios periféricos, 74
Immunology, Die "atypische" Pneumonie, 386
India, Nutritive Value of Indian Foods, 385
Industry, Health Protection of Welders, 614
Industry Hygiene Problems of a State, 1150
Industry, Man in a Chemical World, 900
Industry, Occupational Hazards and Painter, 74
Industry, Pneumonokoniases (Silicosis), 2093
Industry, Trauma and Disease, 1224
Infants, Etudes sur les maladies, 818
Infants, feeding, Uber die Ernährung des Säuglings, 530
Infants, New Born, Diseases, 457
Infants, Nursery Years, 304
Infants, Unreife und Lebensschwache, 2165
Infection, Alimentary Factor in Disease, 2014
Infectious Disease, Die "atypische" Pneumonie, 386
Infectious Disease, Entstehung und biologische Bekämpfung typischer Infektionskrankheiten, 737
Infectious Disease, Maladies infectieuses, 1148
Insulin therapy, Uber einige neue Arzneimittel II, 982
Insurance, Assessment of Risks in Life Assurance Practice, 1572
Insurance, Health, Concept of Social Medicine, Germany, 1779-1932, 615
Inter-Departmental Committee on Rehabilitation, Interim Report, 1933
International Medical Annual, 900
Intestines, Diagnosis and Treatment of Diseases, 736
Intestines, Over het elimineeren van darmgassen, storend voor de röntgendiagnostiek, 1151
Intestines, Studies on Human Intestinal Protozoa, 1290
Ionization, Practice of, 1663
Iron, Das Serumeisen und die Eisenmangelkrankheit, 1842
Isaacs, S., Nursery Years, 304
Ives, J. E., Measurements of Ultraviolet Radiation and Illumination in American Cities, 1572
Jackson, C., Larynx and Its Diseases, 459
Jackson, J. A., Guiding Your Life with Psychology as Key, 1388
Jackson, S., Practical Orthoptics in Treatment of Squint, 458
Jenkins, G. L., Quantitative Pharmaceutical Chemistry, 2093
Jessen, H., Cytologie du liquide céphalo-rachidien, 899
Joint Range of Chart, 1226
Jordan, H. E., Textbook of Embryology, 1149
Joslin, E. P., Treatment of Diabetes Mellitus, 383
Joyeux, C., Précis de médecine coloniale, 1934
Kandel, I. L., Examinations and Their Substitutes, 385
Kayne, G. G., Control of Tuberculosis in England Past and Present, 1841
Kellner, F., Die "atypische" Pneumonie, 386
Kemp, T., Prostitution, 737
Kenny, E., Infantile Paralysis and Cerebral Diplegia, 2092
Kidney, les hépatonéphrites, 385
Kidney, Original Papers of Richard Bright on Renal Disease, 161
Klare, K., Anleitung zur Konstitutionsdiagnostik bei kindlicher Tuberkulose, 1391
Kleitman, N., Sleep Characteristics, 1932
Koch, E., Allgemeine Elektrokardiographie, 816
Koll, I. S., Medical Urology, 1303
Kompaneytzas, S. M., editor, Bolezni ukha, nosa i gorla, 303
Kopaczewski, W., Traité de biocolloïdologie, 1301
Kopsch, F., Die Nomina anatomica, 816
Kornmüller, A. E., Die bioelektrischen Erscheinungen der Hirnrindenfelder, 386
Kremer, W., Die Entwicklung der Lungentuberkulose des Erwachsenen, 1475
Krueger, G., Concept of Social Medicine, Germany, 1779-1932, 615
Krueger, W. W., Fundamentals of Personal Hygiene, 160
Krusen, F. H., Light Therapy, 386
Kuczynski, M. H., Alimentary Factor in Disease, 2014
Künkel, F., What It Means to Grow Up, 900
Kulenkampff, D., Allgemeine Chirurgie, 1068
Kurzrok, R., Endocrines in Obstetrics and Gynecology, 1840
Kylin, E., Der Blutdruck des Menschen, 532
Laboratory Manual of General Physiology, 1752
Laboratory, Notes on Clinical Laboratory Methods, U. of Glasgow, 1151
Laboratory Practice, Manual of Public Health, 982
Lancet, Prognosis, 459
Langerhans, P., Contributions to Microscopic Anatomy of Pancreas [1869], 901
Lapham, R. F., Disease and the Man, 2165
Laqueur, A., Die Praxis der physikalischen Therapie, 1392
Larynx and Its Diseases, 459
Latin, Medical, at a Glance, 159
Lees, D., Practical Methods in the Diagnosis and Treatment of Venereal Diseases, 2014
Le Fleming, E. K., Introduction to General Practice, 232
Lehmann, E., Einführung in die chemische Physiologie, 1751
Lemierre, A., Maladies infectieuses, 1148
Leriche, R., La chirurgie de la douleur, 1932
Leveuf, J., Etudes sur le spina bifida, 532
Levy, A. J., Ber'uth Ha-zibur, 900
Levy, A. J., Kerah Rishonah, 900
Levy, A. J., Sanitariuth, 900
Levy, D. M., Studies in Sibling Rivalry, 980
Lewis, E. St.E., Going to Make A Speech? 532
Lewis, T., Clinical Electrocardiography, 2013
Lichnsky, Vaclav, Soubor praci venovanych, 2092
Lisegang, R. E., Wissenschaftliche Forschungsberichte, 1478
Life and Death: Autobiography of Surgeon, 159
Life Live Long and Be Happy, 734
Life Saving and Water Safety, 818
Light, Measurements of Ultraviolet Radiation and Illumination in American Cities, 1572
Light Therapy, 386
Lipids, Biochemistry, 899
Lipoids, Une forme cérébrale de la cholestérinose généralisée, 2014
Litvak, B. I., Atlas gisteroskopii v akusherstve, 304
Live Long and Be Happy, 734
Liver, Diagnosis and Treatment of Diseases, 302
Liver, les hépatonéphrites, 385
Liver, Quelques vérités premières (ou soi-disant telles) sur les maladies du foie, 159
Löhr, W., Wundheilung, 981
Lord, E. E., Children Handicapped by Cerebral Palsy, 1223
Lowman, C. L., Technique of Underwater Gymnastics, 1226
Luck, J. M., Annual Review of Biochemistry, 1756
Lungs collapse, Atelektasen bei kavernöser Lungentuberkulose, 1479
Lungs gangrene, Studies on Bacterial Flora of Respiratory Tract, 898
Lungs, Incidence of Anaesthetic Complications, 614
Lungs, Tomographische Diagnostik der tuberkulösen Kaverne, 1479
Lyle, K., Practical Orthoptics in Treatment of Squint, 458
Lymphatic System, Physiologie du système lymphatique, 1933
Lymphogranuloma, venereal, Chetvertaya venericheskaya bolezn, 1752
Lymphogranulomatosis, El grupo indeterminado de las afecciones malignas de los ganglios linfáticos, 1479
McCarthy, R. C., Safeguarding Mental Health, 1391
McClendon, J. F., Physiological Chemistry, 1676
McClung, C. E., editor, Handbook of Microscopical Technique, 1150
Maher, C. C., Electrocardiography, 1223
Malpochi, M., Life and Death, 159
Major, R. H., Physical Diagnosis, 232
Malinowsky, M. C., Carcinoma of Female Genital Organs, 898
Mansfield, W., Materia Medica, Toxicology and Pharmacognosy, 737
Marfan, A. B., Etudes sur les maladies de l'enfance, 818
Margolis, M., editor, Clinical Reviews of the Pittsburgh Diagnostic Clinic, 1069
Marion, G., Quelques verites premieres (ou soi-disant telles) en urologie, 1478
Marriage, Das Geschlechtsleben, 531
Marshall, M. S., editor, Bacteriology of Specific Communicable Diseases, 900
Martin, E., Dextrose Therapy in Everyday Practice, 1664
Mason, R. L., Preoperative and Postoperative Treatment, 1751
Massie, G., Surgical Anatomy, 982
Materia Medica Including Pharmacology and Therapeutic Hints, 981
Materia Medica, Toxicology and Pharmacognosy, 737
Mathews, A. P., Vitamins, Minerals and Hormones, 231
Maurer, K., Chemie der Inkrete und ihre wichtigsten Darstellungsmethoden, 1842
Maus, F., Die Veranlagung zu Krampfanfällen, 159
May, C. H., Manual of Diseases of Eye, 1842
Means, J. H., Thyroid and Its Diseases, 456
Medical Practice, Business Side, 1479
Medical Practice, Introduction to General Practice, 232
Medical Research Council, Development of Cardiac Enlargement, 1750
Medical Research Council, Medical Uses of Radium, 734
Medical Research Council, Use of Hearing Aids, 529
Medical Service, Physicians and Medical Care, 457
Medical Services, Public, Survey of Tax-Supported Medical Care in U. S., 815
Medicine, Ganzheitsproblematik in der Medizin zugleich eine Einführung in die medizinische Erkenntnislehre, 1068
Medicine history, Adaptation in Pathological Processes (Welch, 1897), 1934
Medicine, history, Brief Rule to Guide the Common-People of New-England the Small Pocks, or Measles, 1677/8, 1934
Medicine, history, British Masters of Medicine, 459
Medicine, history, Consulti medici (Morgagni), 157
Medicine, history, Discourse upon the Institution of Medical Schools in America (Morgan, 1765), 1934
Medicine, history, Doctors on Horseback: Pioneers of American Medicine, 1934
Medicine, History of Medicine in State of New York and County of Monroe, 532
Medicine history, Opuscula selecta Neerlandicorum de arte medica, 1223
Medicine, history, Russian Medicine, 1932
Medicine, Practice of, Textbook of, 2164
Medicine, Practitioners Library, 75
Medicine, Taylor's Practice of, 1302
Medicine, Textbook of (Conybeare), 304
Medicolegal Cases, 458
Meier, N. C., editor, Studies in Psychology of Art, 1389
de Mello, R. F., Os hormonios testiculares, 1663
Menopause, Les Hémorragies utérines avant et après la ménopause, 74
Menstruation, Marriage and Periodic Abstinence, 160
Menstruationsstörungen hormonalen Ursprungs, 737
Mental Disease, Mind of Man, 1388
Mental Disorder, Exploration of the Inner World, 530
Mental Health, Safeguarding, 1391
Mental Hygiene, Personality and the Cultural Pattern, 1569
Mental Patients, Family Care, 529
Merck's (E.) Jahresbericht, 1151
Metabolism of Living Tissue, 615
Metropolitan Life Insurance Company, Health Protection of Welders, 614
Metzger, M., Le chirurgien devant l'état puerpéral, 158
Migraine ophtalmique, 1069
Miles, A., Operative Surgery, 304
Milk and Nutrition, 1477
Milk Prices, Federal and State Control, 459
Mind of Man, 1388
Minerals, Vitamins, and Hormones, 231
Mitchiner, P. H., Surgery for Dental Students, 1392
Møller-Christensen, E., Studie über das Zusammenspiel von Hypophysen- und Ovarialhormonen, 1752
Mollaret, P., Interprétation du fonctionnement du système nerveux, 1477
Mondor, H., Quelques vérités premières (ou soi-disant telles) en chirurgie abdominale, 2163
Morals, Modern, History of, 158
Morell, P., Poisons, Potions and Profits, 1664
Morgagni, G., Consulti medici, 157
Morgan, J., Discourse upon the Institution of Medical Schools in America (1765), 1934
Morphine Habit and Its Painless Treatment, 302
Morrison, H., Contributions to Microscopic Anatomy of the Pancreas (Langerhans, 1869), 901
Munch, J. C., Manual of Biological Assaying, 735
Narcotics, Traité de biocolloïdologie, 1301
National Health Series, 20 volumes, 613
Negroes, Blood Groups of Bantu of Southern Africa, 531
Negus, V. E., Diseases of the Nose and Throat, 1573
Nervous Activity, Electrical Signs, 1224
Nervous System, Autonomic Neuro-Effector Systems, 1392
Nervous System, Basis of Clinical Neurology, 1479
Nervous System, Disease of, in Infancy, Childhood and Adolescence, 2164
Nervous System, Interprétation du fonctionnement du système nerveux par la notion de subordination, 1477
Nervous System, K. ycheniyu o ganglionevromakh tsentralnoy nervnoysistemy, 1750
Nervous System, Lehrbuch der Nervenkrankheiten in 30 Vorlesungen, 1148
Neuralgias, Facial, 303

Book Notices—Continued
Neurology, 1476
Neurology, Clinical, Basis of, 1479
Neuroses, Common, of Children and Adults, 2013
Neuroses, Common, Their Treatment by Psychotherapy, 1572
Neuroses, Spectacle of a Man, 2164
Neustatter, W. L., Modern Psychology in Practice, 1841
New and Nonofficial Remedies, 1937, 897
New York, History of Medicine, 532
Nielsen, J. M., Agnosia, Apraxia, Aphasia, 531
Nissen, R., Chirurgische Indikationen, 1664
Nose, Diseases of (Hall), 900
Nose, Diseases of (Thomson), 1572
Nursery Years, 304
Nurses, Practical Psychology, 1477
Nursing, Manual of Operating Room Procedures, 736
Nursing, Obstetric and Gynecologic, 2014
Nursing, Pediatric, 304
Nursing, Surgical, Textbook of, 2165
Nutrition, Alimentary Factor in Disease, 2014
Nutrition, Chemistry of Food and Nutrition (Sherman), 531
Nutrition, Milk and Nutrition, 1477
Obstetric Difficulties, Management of, 2163
Obstetric Nursing, 2014
Obstetrics, Childbirth, 982
Obstetrics, Endocrines in, 1840
Obstetrics, Maternal Care, 1301
Obstetrics, Tweedy's Practical, 1571
Oliver, R., Spontaneous Combustion: A Literary Curiosity, 1934
Ombrédanne, L., Quelques vérités premières (ou soidisant telles) en chirurgie infantile, 529
Ombrédanne, L., Traité de chirurgie orthopédique, 232
Ombrédanne, M., Quelques vérités premières (ou soi-disant telles) en oto-rhino-laryngologie, 2165
Ophthalmology, Hand-Book of Ocular Therapeutics, 531
Ophthalmology, Manual of Diseases of the Eye, 1842
Ophthalmoscopy, Internal Diseases of Eye and Atlas of, 231
Ophthalmoscopy, Retinoscopy and Refraction, 903
Oppenheimer, C., Die Fermente und ihre Wirkungen, 1069
Oppenheimer, C., Einführung in die allgemeine Biochemie, 1070
Orthopaedic Surgery, Elements, 1664
Orthopaedic Surgery, Handbook, 386
Orthopaedic Surgery, Recent Advances, 73
Orthopedic surgery, Traité de chirurgie orthopédique, 232
Orthopaedics, Source Book, 232
Orthoptics, Ophthalmoscopy, 303
Orthoptics, Practical, in Treatment of Squint, 458
Orton, S. T., Reading, Writing and Speech Problems in Children, 302
Osborn, T. W. B., Complement or Alexin, 232
Osman, A., Original Papers of Richard Bright on Renal Disease, 161
Osteo-arthritis, Urovskaya bolezn v Zabaykale, 1664
Osteopathy, What is Osteopathy? 2163
Otitis Media, Die akute Mittelohrentzündung, 1664
Otolaryngology, Bolezni ukha, nosa i gorla, 303
Otolaryngology, Physical Therapeutic Methods in, 160
Otorhinolaryngology, Practitioners Library, 75
Otorhinolaryngology, Quelques vérités premieres (ou soi-disant telles) en oto-rhino-laryngologie, 2165
Out of My Life and Work (Forel), 1933
Out of the Test Tube, 898
Pain, Diagnostics of, 615
Pain, La chirurgie de la douleur, 1932
Painter, Occupational Hazards, 74
Palestine, Ber'uth Ha-sibur, 900
Palestine, Ezrah Rishonah, 900
Palestine, Sanitarium, 900
Palmer, J. H., Development of Cardiac Enlargement, 1750
Palumbo, V., Curieterapia in dermatologia, 2014
Pancreas, Contributions to Microscopic Anatomy, (Langerhans 1869) 901
Paralysis, Children Handicapped by Cerebral Palsy, 1225
Paralysis, spastic, Infantile Paralysis and Cerebral Diplegia, 2092
Parasitology, Précis de parasitologie, 612
Paratyphoid, Nogle Undersøgelser over Widalreaktionen ved Tyfus og Paratyfus, 918
Parry, T. W., Immortal Names and Other Poems, 1933
Pathology, Adaptation in Pathological Processes (Welch 1897), 1934
Pathology, Aids to, 1478
Pathology, Autopsy Diagnosis and Technique, 459
Pathology, Funktionelle Pathologie, 457
Pathology, Morphologische Pathologie, 1476
Pathology, Post-Mortem Appearances, 1479
Patient and the Weather, 1222
Patterson, S. H., Economic Problems of Modern Life, 304
Peacock, A. H., Globe Trotting with a Surgeon, 615
Pediatric Dietetics, 1148
Pediatrics, Aids to Diagnosis and Treatment of Diseases of Children, 532
Pediatrics, Disease in Childhood, 385
Pediatrics, Diseases of Infants and Children, 1070
Pediatrics, Diseases of the Nervous System, 2164
Pediatrics, Diseases of Newborn, 457
Pediatrics, Handbook on Diseases of Children, 1150
Pediatrics, Nursing, 304
Pediatrics, Synopsis of, 1069
Peiper, A. P., Unreife und Lebensschwache, 2165
Peptic Ulcer, Over zweren in maag en duodenum bij Inheemschen en Chineezen in Nederlandsch-Indië, 1150
Perkelyn, I. D., editor, Chetvertaya venericheskaya bolezn, 1752
Permeabilité, 231
Personality and Cultural Pattern, 1569
Personality and Sex, 1477
Personality, Rorschach Method, 1478
Personality, Visual Perception, 1570
Peter, F. M., Ergebnisse und Fortschritte der Antimontherapie, 1149
Petersen, W. F., Patient and the Weather, 1222
Pharmaceutical Chemistry, Quantitative, 2093
Pharmacology, Introduction to, 386
Pharmacology, Manual of, 1067
Pharmacopoeia and Guide, School of Tropical Medicine, Calcutta, 615
Pharynx, Les maladies du pharynx, 1476
Phenanthrene, Chemistry of Natural Products Related to, 159
Phillips, J., Diagnosis and Treatment of Diseases of Liver and Biliary Tract, 302
Physical Diagnosis, 232
Physical Examination, Physical Diagnosis, 1569
Physical Therapeutic Methods in Otolaryngology, 160
Physical Therapy, Die Praxis der physikalischen Therapie, 1392
Physical Therapy, Précis de physiothérapie clinique, 1389
Physicians, American Doctor's Odyssey, 386
Physicians and Medical Care, 457
Physicians, Doctors on Horseback, 1934
Physiological Basis of Medical Practice, 230
Physiological Chemistry (McClendon-Pettibone) 1070
Physiological Chemistry, Einführung in die chemische Physiologie, 1751
Physiological Chemistry, Laboratory Manual, (Wilson) 1068
Physiology, Aids to, 2093
Physiology, Chemical, Essentials, 1390
Physiology, Experimental, 615
Physiology, Human, 458
Physiology in Health and Disease, 75
Physiology, (Barnes') Laboratory Manual, 1752; Textbook, 2165
Physiology, Physiologie du système lymphatique, 1
Pillet, E., Analyse physique des calculs urinaires et biliaires, 2092
Pincussen, L., Mikromethodik, 1572
Piso, Willem, Opuscula selecta Neerlandicorum de arte medica, 1225
Pittsburgh Diagnostic Clinic, Clinical Reviews, 1069
Pituitary, Studien über das Zusammenspiel von Hypophysen- und Ovarialhormonen, 1752
Plant, J. S., Personality and Cultural Pattern, 1569
Plesch, J., Physiology and Pathology of Heart and Blood Vessels, 1225
Pneumonokonioses (Silicosis), 2093
Poetry, Dust of Our Time, 533
Poetry, Immortal Names and Other Poems, 1933
Poisons, Potions and Profits, 1664
Poliomyelitis, Infantile Paralysis, Methods Used for Restoration of Function, 2092
Poliomyelitis, Technique of Underwater Gymnastics, 1225
Pollock, H. M., editor, Family Care of Mental Patients, 529
Portman, K., Studies and Investigations into Corpus Luteum Hormone, 736
Post-Mortem Appearances, 1479
Postranecký, O., Léceni diabetu, 1150
Posture, Interprétation du fonctionnement du système nerveux, 1477
Potter, E. S., Serpents in Symbollam, Art and Medicine, 75
Poulton, E. P., Taylor's Practice of Medicine, 1070
Power, D'A., British Masters of Medicine, 459
Practitioners Library of Medicine and Surgery, 75
Pregnancy, Maladies des femmes enceintes, 1572
Pregnancy Maternal Care, 1301
Price, F. W., editor, Textbook of Practice of Medicine, 2164
Priestley, J. G., Human Physiology, 458
Prognosis, 459
Prostitution, 737
Psittacosis, Laboratory Diagnosis, 1069
Psychiatric Social Service in a Children's Hospital, 1149
Psychiatry, Family Care of Mental Patients, 529
Psychology, Guiding Your Life, 1388
Psychology, Modern Discoveries, 531
Psychology, Modern, in Practice, 1841
Psychology of Art, 1389
Psychology, Practical, for Nurses, 1477
Psychology, Studies in General Psychology, 1390
Psychology, Studies in Sibling Rivalry, 980
Psychology, Visual Perception, 1570
Public Speaking, Going to Make a Speech? 532
Public Welfare, Report of the Subcommittee on Health and Disability of the Citizen's Committee, Wisconsin, 614
Puente Duany, N., El grupo indeterminado de las afecciones malignas de los ganglios linfáticos, 1479
Puerperium, Le chirurgien devant l'état puerpéral, 158
Raab, E., Kurzwellentherapie in der Praxis, 817
Radio advertising, Poisons, Potions, and Profits, 1664
Radium, Curie terapia in dermatologia, 2014
Radium, Medical Uses of, 734
Radium, Physical Aspects, 1842
Radium, Radiumdosimetrie, 1305
Radon, Emanotherapy, 1840
Radon Therapy, Physical Aspects, 1842
Rambert, P. A., Le principe antipernicieux de l'estomac, 613
Ravina, A., L'année thérapeutique, 737
Reading, Problems in Children, 302
Rectum, Synopsis of Ano-Rectal Diseases, 736
Red Cross, American, Life Saving and Water Safety, 818
Religion, Exploration of Inner World, 530
Renard, G., La migraine ophthalmique, 1069
Respiration, Funktionsprüfung der Atmung, 1392
Respiratory Exercises, Cure of High Blood Pressure by, 530
Respiratory Tract, Der einfache Schleimhautkatarrh der oberen Luftwege, 1150
Respiratory Tract, Studies on Bacterial Flora of, 898
Reynberga, S. A., editor, Tuberkulez legkikh i zabolevaniya bronkhialnoy prokhodimosti, 1752
Rheumatism, Charterhouse Clinic, 2092
Ribeiro, E. B., Estudos cirurgicos, 613
Richardson, F. H., Feeding Our Children, 1150
Richter, H., Die akute Mittelohrentzündung, 1664
Rienhoff, W., Sr., Principles and Foibles of Cancer Research, 1305
Risak, E., Der klinische Blick, 818
Rochester, N. Y., History of Medicine, 532
Roddis, L. H., William Wilhering, 303
Roentgen Rays, Development of Cardiac Enlargement, 1750
Roentgen Rays, Digestive Tract, 283
Roentgen Rays, Lehrbuch der röntgenologischen Differentialdiagnostik der Erkrankungen der Bauchorgane, 817
Roentgen Rays, Manual of Radiological Diagnosis, 160
Roentgen Rays, Over het elimineeren van darmgassen, storend voor de röntgendiagnostiek, 1151
Roentgen Rays, Tomographische Diagnostik der tuberkulosen Kaverne, 1479
Roentgenology, Clinical, of Cardiovascular System, 74
Roentgenology, Diagnostic, Textbook of, 2092
Roesler, H., Clinical Roentgenology of Cardiovascular System, 74
Rolleston, J. D., History of Acute Exanthemata, 75
Rongy, A. J., Childbirth: Yesterday and Today, 982
Rorschach Method, Introduction to, 1478
Rosanoff, A. J., Etiology of Mental Deficiency, 1478
Rosenblueth, A., Autonomic Neuro-Effector Systems, 1392
Rosenwald Fund, Concept of Social Medicine, Germany, 1779-1932, 615
Ross, I. A., Common Neuroses, 1572
Ross, J. M., Post-Mortem Appearances, 1479
Rouvière, H., Physiologie du système lymphatique, 1933
Rowe, A. H., Clinical Allergy, 384
Rowlands, R. P., Operations of Surgery, 532
Roxburgh, A. C., Common Skin Diseases, 1148
Ruckmick, C. A., editor, Studies in General Psychology, 1390
Rudolph, J. A., Allergy, 1571
Ruediger, E. H., Specificity of Wassermann Test in Syphilis, 1934
Russell Sage Foundation, Physicians and Medical Care, 457
Russian Medicine, 1932
Safety, Accidents and Their Prevention, 457
Salmonsen, E. M., Pneumonokonioses (Silicosis), 2093
Salzmann, J. A., Principles and Practice of Public Health Dentistry, 1663
Saphir, O., Autopsy Diagnosis and Technique, 459
Savill, T. D., System of Clinical Medicine, 158
Saxl, N. T., Pediatric Dietetics, 1148
Scalpel and Sword, 160
Schindler, R., Gastroscopy, 1569
Schmidt, H., Ergebnisse und Fortschritte der Antimontherapie, 1149

Book Notices—Continued
School Health Problems, 613
Schudel, L., Leitfaden der Blutmorphologie, 459
Schulten, H., Die Sternalpunktion als diagnostische Methode, 230
Science Museum of London, Report of Advisory Council, 1843
Scott, G. L., Morphine Habit, 302
Seamen's Handbook for Shore Leave, 1664
Serpents in Symbolism, Art and Medicine, 75
Sex and Personality, 1477
Sex, Das Geschlechtsleben, 531
Sex, Encyclopaedia of Sexual Knowledge, 532
Sex, History of Modern Morals, 158
Sex Instruction for Girls, 1932
Sexual Power, 816
Shands, A. R., Jr., Handbook of Orthopaedic Surgery, 386
Shepherd, F., Sex Instruction for Girls, 1932
Sherman, H. C., Chemistry of Food and Nutrition, 531
Shields, C., Hay Fever, Treatment by Intranasal Ionization, 230
Short, A. R., editor, International Medical Annual, 900
Sibling Rivalry, Studies in, 980
Simpson, S. L., Medical Diagnosis, 615
Sinclair, J. G., Anatomy of Fetal Pig, 817
Sindoni, A. M., Jr., Diabetes, 982
Skin, Curieterapia in dermatologia, 2014
Skin Diseases, Common, 1148
Skin, Hautdesinfektionsprobleme, 899
Skin, Maladies des femmes enceintes, 1572
Sleep Characteristics, 1932
Sloof, J. P., Der tuberkulöse Primärkomplex im Röntgenbilde, 1302
Smallman, A. B., Cancer: Radio-Therapeutic Departments in General Hospitals, 1390
Smallpox, Brief Rule to Guide the Common-People of New-England, 1677/8, 1934
Smith, N. R., Elements of Orthopaedic Surgery, 1664
Social Hygiene, Investigation into Questions of, 1571
Social Medicine, Concept, Germany, 1779-1932, 615
Social Science Research Council, Research Memorandum on the Depression, 2163
Social Service, Psychiatric, in Bobs Roberts Memorial Hospital for Children, 1149
Soeharto, R., Over zweren in maag en duodenum bij Inheemschen en Chineezen in Nederlandsch-Indië, 1150
Solomons, B., Tweedy's Practical Obstetrics, 1571
Spasm, Les spasmes de la face et leur traitement, 818
Spectacle of a Man, 2164
Speech, Going to Make a Speech? 532
Speech in Deaf Children, 1148
Speech Problems in Children, 302
Speech, Your Everyday Speech, 160
Spiders, Le venin des araignées, 815
Spiers, H. W., Brief Outline of Modern Treatment of Fractures, 979
Spina bifida, Études sur le spina bifida, 532
Spine, La spondylolyse et ses conséquences, 1223
Spine of Dog, 615
Stephens, J. W. W., Blackwater Fever, 1751
Sterilization, Eugenical, 458
Stern, E. A., Culture des tissus et cancer, 1391
Sternalpunktion als diagnostische Methode, 230
Stomach, Diagnosis and Treatment of Diseases of, 736
Stomach, Die Gastroskopie, 1751
Stomach, Gastroscopy: Endoscopic Study of Gastric Pathology, 1569
Stomach, Le principe antipernicieux de l'estomac, 613
Stone, C. T., Sexual Power, 816
Strabismus, Practical Orthoptics, 458
Stubbe, H., Spontane und strahleninduzierte Mutabilität, 1662
Stumpf, P., Zehn Vorlesungen über Kymographie, 1392
Sure, B., Little Things in Life, 457
Surgeon, Globe Trotting, 615
Surgery, Allgemeine Chirurgie, 1068
Surgery, Chirurgische Indikationen, 1664
Surgery, Diabète et chirurgie, 2165
Surgery, Estudos cirurgicos, 613
Surgery for Dental Students, 1392
Surgery, La chirurgie de la douleur, 1932
Surgery, Les méthodes chirurgicales du traitement de l'angine de poitrine, 1753
Surgery, Manual of Operating Room Procedures, 736
Surgery of war, Cirugía reparadora de las lesiones de los nervios periféricos, 74
Surgery, Operations, 532
Surgery, Operative Surgery, 304
Surgery, Practitioners Library, 75
Surgery, Preoperative and Postoperative Treatment, 1751
Surgery, Quelques vérités premières (ou soi-disant telles) en chirurgie abdominale, 2163
Surgery, Quelques vérités premières (ou soi-disant telles) en chirurgie infantile, 529
Surgery, Traité de chirurgie orthopédique, 232
Surgical Anatomy, 982
Surgical Nursing, Textbook of, 2165
Surgical Pathology of Thyroid Gland, 900
Surgical Treatment, 1304
Sutton, D. C., Physical Diagnosis, 1569
Svensson, R., Studies on Human Intestinal Protozoa, 1390
Sweden, Investigation into Questions of Social Hygiene, 1571
Syphilis, Lehrbuch und Atlas der Haut- und Geschlechtskrankheiten, 982
Syphilis, Specificity of Wassermann Test, 1934
Syphilis, Who Gave the World Syphilis? Haitian Myth, 157
Take Care of Yourself, 532
Tanner, F. W., Bacteriology, 1661
Tax-Supported Medical Care, 815
Taylor's Practice of Medicine, 1302
Tchaperoff, I. C. C., Manual of Radiological Diagnosis, 160
Ten Rhyne, Wilhelm, Opuscula selecta Neerlandicorum de arte medica, 1225
Terman, L. M., Sex and Personality, 1477
Terminology, Die Nomina anatomica, 816
Terminology, Medical Greek and Latin at a Glance, 159
Teschendorf, W., Lehrbuch der röntgenologischen Differentialdiagnostik der Erkrankungen der Bauchorgane, 817
Testis, Os hormonios testiculares, 1663
Thacher, T., Brief Rule to Guide the Common People of New-England, in the Small Pocks, or Measles, 1677/8, 1934
Therapeutics, Introduction to, 386
Therapeutics, L'année thérapeutique, 737
Therapeutics, Ocular, Handbook of, 531
Thiel, R., Atlas der Augenkrankheiten, 160
Thomas, P., Manuel de biochimie, 897
Thomson, St. C., Diseases of the Nose and Throat, 1572
Thost, A., Der einfache Schleimhautkatarrh der oberen Luftwege und seine Behandlung, 1150
Throat, Diseases of (Hall), 900
Throat, Diseases of (Thomson), 1572
Thyroid and Its Diseases, 456
Thyroid Gland, Surgical Pathology, 900
Thyroidectomie totale dans le traitement de l'insuffisance cardiaque et de l'angine de poitrine, 1149
Tidy, H. L., editor, International Medical Annual, 900
Tirala, L. G., Cure of High Blood Pressure by Respiratory Exercises, 530
Tissue, Culture des tissus et cancer, 1391
Tissues, Living, Metabolism of, 615
Titus, P., Management of Obstetric Difficulties, 2163
To Drink or Not to Drink, 1752
Tobey, James A., Federal and State Control of Milk Prices, 459
Toe Casting and Liquid Rubber Technic, 981
Tow, A., Diseases of Newborn, 457
Trauma and Disease, 1224
Travel, Globe Trotting with a Surgeon (A. H. Peacock), 615
Travel, Seamen's Handbook for Shore Leave, 1664
Troncoso, M. U., Internal Diseases of the Eye and Atlas of Ophthalmoscopy, 231
Tropical Diseases, Pharmacopoeia and Guide, 615
Tropical Medicine, Précis de médecine coloniale, 1934
Tuberculosis, Anleitung zur Konstitutionsdiagnostik bei kindlicher Tuberkulose, 1391
Tuberculosis, Atelektasen bei kavernöser Lungentuberkulose, 1479
Tuberculosis, Chronic Miliary, 1842
Tuberculosis, Control of, in England Past and Present, 1841
Tuberculosis, Der tuberkulöse Primärkomplex im Roentgenbilde, 1302
Tuberculosis, Die Entwicklung der Lungentuberkulose des Erwachsenen, 1479
Tuberculosis, Die klimatische Behandlung der Tuberkulose und ihre heutige Bewertung, 1389
Tuberculosis, Le bacille de type bovin dans la tuberculose humaine, 1570
Tuberculosis, L'infection bacillaire et la tuberculose, vaccination préventive (Calmette), 736
Tuberculosis, Lungentuberkulose in Verbindung mit anderen Erkrankungen, 1934
Tuberculosis, pulmonary, Tomographische Diagnostik der tuberkulösen Kaverne, 1479
Tuberculosis, pulmonary, Tuberkulez legkikh, bronkhialnoy prokhodimosti, 1752
Tuft, L., Clinical Allergy, 1750
Tweedy's Practical Obstetrics, 1571
Twins, Etiology of Mental Deficiency, 1478
Typhoid, Nogle Undersøgelser over Widalreaktionen, 818
Ultraviolet Radiation, Measurements in American Cities, 1572
University of Glasgow, Clinical Laboratory Methods, 1151
Unti, O., Anestesia de base pela dialilmalonil-uréa, 1303
Urinary Tract calculi, Analyse physique, 2092
Urine, Mikromethodik, 1572
Urology, Medical, 1303
Urology, Quelques vérités premières (ou soi-disant telles) en urologie, 1478
Uterus, Atlas gisteroskopii v akusherstve, 304
Uterus, Les hémorrhagies utérines avant et après la ménopause, 74
Vaizey, M., Chronic Miliary Tuberculosis, 1842
Vallery-Radot, P., L'anaphylaxie, 1840
van Bogaert, L., Une forme cérébrale de la cholestérinose généralisée, 2014
van der Burg, L. W., Over het elimineeren van darmgassen, storend voor de röntgendiagnostiek, 1151
Varicose Veins, Le varici, 386
Vellard, J., Le venin des araignées, 815
Venereal Diseases, Practical Methods in Diagnosis and Treatment, 2014
Ventilation, Modern Principles, 1068
Vernon, H. M., Accidents and Their Prevention, 457
Vernon, M. D., Visual Perception, 1570
Vignes, H., Maladies des femmes enceintes, 1572
Virus Research, Use of Developing Egg in, 384
Viruses, Filterable, Laboratory Outline in, 303
Vision, Deficiency of A Vitamin and Visual Dysaptation, 73
Visual Perception, 1570
Vitamin A, Deficiency of A Vitamin and Visual Dysaptation, 73
Vitamin, Avitaminoses, 158
Vitamins in Theory and Practice (Harris), 531
Vitamins, Little Things in Life, 457
Vitamins, Minerals and Hormones, 231
Wahlin, B., Das Reizleitungssystem und die Nerven des Säugetierherzens, 1224
War, Cirugía reparadora de las lesiones de los nervios periféricos, 74
Warbasse, J. P., Surgical Treatment, 1304
Warembourg, H., Les hyperglycémies, 1304
Wassermann Test, Specificity in Syphilis, 1934
Water Safety and Life Saving, 818
Water, Technique of Underwater Exercises, 1226
Weather, Patient and the Weather, 1222
Weber, A., Tableau de la caricature médicale, 76
Welch, W. H., Adaptation in Pathological Processes (1897), 1934
Welders, Health Protection of, 614
Werner, A. A., Endocrinology, 1661
Wernøe, T. B., Diagnostics of Pain, 615
White, P. D., Heart Disease, 304
White, R. C., Research Memorandum on Social Aspects of Relief Policies in the Depression, 2163
Wiggers, C. J., Physiology in Health and Disease, 75
Williamson, B., Handbook on Diseases of Children, 1150
Wilson, D. W., Laboratory Manual of Physiological Chemistry, 1068
Wiprud, T., Business Side of Medical Practice, 1479
Wisconsin, Report of Subcommittee on Health and Disability, 614
Withering, William, Introduction of Digitalis, 303
Wokes, F., Textbook of Applied Biochemistry, 1571
Wolff, P., Über einige neue Arzneimittel, 982
Women, Intimate Side of Woman's Life, 614
Wood, H. C., Jr., and others, Dispensatory, 158
Woolf, W. H., Toe Casting and Liquid Rubber Technic, 981
Wounds, Wundheilung, 981
Writing Problems in Children, 302
Your Everyday Speech, 160
Zahorsky, J., Pediatric Nursing, 304
Zahorsky, J., Synopsis of Pediatrics, 1069
Zieler, K., Lehrbuch und Atlas der Haut- und Geschlechtskrankheiten, 982
Zimmer, K. G., Radiumdosimetrie, 1305

C

C. C. C.: See Civilian Conservation Corps
CABOT, HUGH, 956—E; 1280—E
CACHEXIA: See Pituitary
CADAVER Blood: See Blood Transfusion
skin reaction to radium and roentgen rays, [Paltrinieri] 319—ab
CAFFEINE: See also Coffee
Ampoules Caffeine with Sodium Benzoate, 2 cc., 875
pharmacodynamic action, [Martinetti] 395—ab
Treatment: See Angina Pectoris
CALAFO Liquid, 1060—BI
CALCANEUM spur (painful), surgical treatment, [Spitzy] 320—ab
CALCIFICATION: See Placenta; Spleen; Thorax
CALCIUM and blood coagulation, 1818—E
Carbonate Treatment: See Sinuses, Nasal
chloride, accidental perivascular injection, control effects, 895
Chloride Treatment: See Embolism, pulmonary
deposits in tissues, 2011
effect on gastric secretion, [Cella] 1494—ab
effect on ossification, 435—E
Gluconate (N. N. R.), 2069
Gluconate Treatment: See Anemia, secondary
in Blood: See Blood
in egg shells, 71
intestinal flora and, 1638—E
levels in "jake" paralysis, 70
metabolism, controlling, [Aub] *1278

CALCIUM—Continued
phosphorus ratio of diet, effect on degree of rickets produced, 30
plaque formation in kidney papilla, [Randall & others] •1698
tolerance curves in Paget's disease, [London] 1853—ab
Treatment: See also Anemia; Chorea minor; Eclampsia; Embolism; pulmonary; Purpura haemorrhagica; Sinuses, Nasal
treatment, (oral), simple method, [Fillion] 2172—ab
tricalcium phosphate to remove fluoride from water, [Elvove] 1581—ab
use, and choice of a calcium salt, [Aub] •1276
use in pregnancy to prevent caries, (reply) [Gordon] 733
value of spinach and tomatoes compared, [Tisdall] 1760—ab; (spinach only, Council report) 1907
CALCULI: See Gallbladder; Urinary Tract
CALLUS on feet, radium for, blisters resulting, 1064
CALOMEL: See Mercury, mercurous chloride
CALSO Water, 1060—BI
CALUMET Herb Tea, 2005—BI
CAMPHOR, synthetic, added to Italian pharmacopeia, 2152
Treatment: See Dementia Praecox
CAMPS, isolated, concentrated milk and vitamin C for, 66
CANADA cleans up radio, 1546—E
experience with zinc sulfate sprays, 2072—E
CANADIAN MEDICAL ASSOCIATION: See also Index to Organization Section
meeting, 367; (officers elected) 596
CANCER: See also Adenocarcinoma; Chorionepithelioma; Epithelioma; Tumors, malignant; under names of specific organs; Medicolegal Abstracts at end of letter M
Besredka's vaccination, 60
blood in, specific properties, [Aron] 1675—ab
blood sugar in, 1467
cells, macronucleolus of, [MacCarty] 1667—ab
clinic, (Patrick Hall, Indiana) 798; (Emory U., Georgia) 800
commission (New York) 439; (Missouri) 1285
control, cancer week in Passaic County, N. J., 1550
control, Central Oncologic Scientific Institute, U.S.S.R., 60
control, $10,000,000 given to Yale, 51
diagnosis (biologic) with urinary extract, 599
diagnosis, ninhydrin reaction, [Weiss] 1944—ab
diffuse, symptomatic steatorrhea in, [Lundsteen] 834—ab
exhibit; program, New York, 1821
forum, Philadelphia, 1915
heredity vs. occurrence, [Slye] 1940—ab
hospital, (Memorial Hospital, N. Y.) 513; (Missouri) 565
in children, urogenital tract, [Campbell] •1606
in U. S. Navy from skin irritation, [Peller] 1486—ab
industrial lesions and, 2152
Leningrad Institute of, 60
metastasis by blood stream, [Patey] 314—ab
metastasis causing pathologic fractures, [Ghormley & others] •2111
metastasis (distant) and aspiration biopsy, [McLean] 1579—ab
mortality rate, 380; (reducing) [Skinner] 1940—ab
National Advisory Cancer Council formed, 434—E; 1287
National Cancer Institute, 434—E; 883
nostrum, Baker (Norman), 375—BI; 798
nostrum, Byars axle grease, 364
nostrum, Cooper (W. W.) enjoined, 1914
pain, subarachnoid alcohol injection, [Peyton] 1073—ab; (palliative treatment) 2088
precancerous Bowen's disease, 2153
precancerous cervix, [Strachan] 1584—ab
prize, Cleveland Medal, 1371; (to H. R. Luce of Time, Inc.) 1644
problem, Germany, 724
prognosis, sedimentation reaction, [Jacoby] 1162—ab
research, (consultants at Columbia), 139; (status) 145; 601; (Donner gives funds for) 1644; (Patterson Institute for) 1993; (new viewpoints) [Hagedoorn] 2026—ab; (bequest for, Omaha) 2075
Society of Rosario, Argentina, organized, 1646
statistics in large cities of world, 1223
tar, vitamins inhibit? [Davidson] 2169—ab
tarred road dust and, [Campbell] 624—ab
Treatment, Roentgen: See also Uterus cancer
treatment, roentgen, after removal of basal cell cancer, 1659
treatment, roentgen, Coutard's method, [Chamberlain] 1235—ab
treatment, roentgen, postoperatively, [Wintz] 997—ab
treatment, roentgen sickness, congo red for, 1838
triple primary, in otolaryngology, [Drooker] •1189
urine in, specific properties, [Aron] 1675—ab
CANCER—Continued
vascular parabiosis and sex hormones, [Murray] 965—ab
Wassermann reaction positive in, 609
CANDY Worm Expeller, 1925—BI
CANNABIS: See Index to Organization Section
CANNED Food: See Food
CAPILLARIES circulation, histamine test, 1297
permeability vs. vitamin P, Szent-Györgyi's research, 1912—E; 2154
refrigerability, 1054
CAPILLAROSCOPY of venereal lesions, [Nicolas] 1764—ab
CAPSICUM Salve, 1653—BI
CAPSULE, ordinary or enteric coated glandular products, 974
CAR: See Automobiles
CARBARSONE, N. N. R., dosage forms, 209
Treatment: See Trichomonas vaginalis
CARBOHYDRATES: See also Dextrose; Lactose (cross reference); Sugar
deficiency, rôle in cardiovascular disorder, [Weiss & Wilkins] •747
limitation in migraine treatment, [Porges] 320—ab
metabolism, 1829; (vitamin relationship) [Schroeder] 2140—ab; (anterior pituitary extract effect on) [Lassen] 2110—ab
protein change to, 2072—E
Tolerance: See Diabetes Mellitus
CARBOIL, 2005—BI
CARBOLIC ACID: See Phenol
CARBON: See Acid, carbonic; Charcoal
Arc: See Ultraviolet Rays
CARBON DIOXIDE, atmosphere (10%), apparatus to produce, [Gould & Huddleson], •1973
mine gases and their effects, 975
N. N. R., 1365
relation to artificial respiration, [Johnson] 2103—ab
CARBON DISULFIDE, effects of alcohol on workers with, 1472
industrial poison, [McConnell] •764
CARBON MONOXIDE poisoning (chronic) in 5 gas works employees, 722
CARBON TETRACHLORIDE, industrial hazard, [McConnell] •763; (Shell's Kleenzit) 1658
poisoning, 1144
CARBOSALVE, 1653—BI
CARCINOMA: See Cancer
CARDIOLYSIS: See Pick's Syndrome
CARDIOVASCULAR DISEASE, in beriberi, [Weiss] 986—ab
in nutritional deficiency, [Weiss & Wilkins] •786
Institute on, Cincinnati, 1286
syncope result of, [Herrmann] 907—ab
syphilis, [Paullin] •1123
syphilitic patients with symptoms of, [Cannon] •2351
treatment, theobromine calcium gluconate, [Ziskin] 906—ab
vitamin B_1 in, [Weiss & Wilkins] •788; [Jones] 825—ab
CARDITIS: See Heart inflammation
CARIES: See Teeth
CAROTENE in Blood: See Blood
utilization of vitamin A and, 1045—E; (effect of mineral oil on, Council report) 1814
CAROTID SINUS, diathermy of, in arterial hypertension, [Goriero Pizarro] 1162—ab
postoperative cerebral vascular shock, [Frisch] 2109—ab
CARR-MARTIN, diabetes fraud, 225—BI
CARRIERS: See Paratyphoid; Typhoid
CARS: See Automobiles
CARTILAGE, skeletal diseases, 1829
CASE Finding Work: See Tuberculosis
record, treatment's, [Burwita] 1561—C
CAST, plaster, metal channels facilitate removal, [Prosperi] •1448
plaster shells in infantile paralysis, [Bennett & others] •1120
CASTRATION, theelin in oil dosage after, [Werner & others] •1027
tuberculous infection and, [Schedtler] 914
CATARACT, traumatic, compensation in, 894
treatment surgical, 147
vacuoles in lens a form of, 1744
CATARRH: See Oravax-Merrell, 1130—E
CATGUT tetanus, prevention, 1288
CATHARTICS, phenolphthalein, toxicity [Soper] 294—C
CATTLE, Tuberculosis in: See Tuberculosis, Cattle
CAUDA EQUINA syndromes, low leptomeningitides in, [Devic] 2172—ab
CAUSALIN (Causyth), 506
CAUSYTH: See Causalin
CAVERNOUS SINUS: See Thrombosis, sinus
CEBIONE, N. N. R., 359
CECONI, ANGELO, death, 62
CECUM, congenital undescended, [Jordan] 2022—ab
diverticulitis, spasm, adenocarcinoma, adhesions, etc., [Pickhardt & Rafsky] •2048
CEDAR poisoning predispose to pneumonia? 1744
CELERY, craving for, 1566
CELIAC PLEXUS, stimulation inaugurates circulatory disorders, [Burstein] 1313—ab
CELLOSOLVE, industrial hazard, [McConnell] •765
CELLS: See also Cancer
Basal Cell: See Cancer, treatment
Blood: See Blood; Erythrocytes; Leukocytes
giant, characteristic, preceding measles, 1047—E
Granulosa: See Ovary tumors
International Congress for Experimental Cytology (fifth), 1917
microscopic representation of surfaces of living organs, [Singer] 226—C
Pyramidal: See Mastoid
CELLULITIS of neck requiring tracheotomy, [New] 1672—ab
CELLULOID combs ignite, burns from, [Fox] •1978
CELLULOSE acetate plaster shells, [Bennett & others] •1120
CENSUS, headed for last one? 1638—E; 1726—E
CENTRAL Association of Obstetricians and Gynecologists (prize) 1641; (meeting), 1645
CEREALS, alleged decalcifying effects, Council report, 30
Cerevim, 31
Larsen's "Freshlike" Strained, 433
Lifestaff Natural Grain Porridge, 1637
Meal, 1060—BI
CEREBELLUM atrophy, primary, 1054
CEREBROSPINAL FLUID, lymphocytic choriomeningitis, [Armitage & Dominick] •247
polypeptides in dementia paralytica, [Claude] 1237—ab
Pressure: See also Intracranial Pressure
pressure and subtentorial tumors, [Bedford] 1080—ab
protein, [Phillips] 1318—ab
CEREBROSPINAL MENINGITIS: See Meningitis
CEREBROSPINAL SYPHILIS: See Neurosyphilis
CEREBRUM: See Brain
CEREVIM, 31
CERVICITIS: See Uterus
CESAREAN SECTION, Esmarch's bandage for expelling blood in, [Holzbach] 1085—ab
CHAGAS' Disease: See Trypanosomiasis
CHALGONIA Tablets, 1741—BI
CHALKS, colored, lead in, hazard for children, [Jephcott] 1488—ab
CHALLENGER Brand Evaporated Milk, 1127
CHAMBERLAIN'S Salve, 1925—BI
CHANCROID, capillaroscopy, [Nicolas] 1764—ab
diagnosis, Ducrey vaccine, [Dulaney] 2093—ab
CHAPPEL Liver Extract (Subcutaneous) 10 cc., 1365
CHARCOAL intravenously, [Van Mecteren] 936—ab
CHARCOT'S Joints: See Tabes Dorsalis
CHEMICAL Foundation: See Foundations
CHEMISTRY, Brazilian Congress of (second), 148
CHENEY'S Compound Herbs, 1653—BI
CHERRIES, Sexton Brand, 31
CHEST: See Thorax
CHIASMA Syndrome: See Nerves, optic
CHICAGO Medical Society (approves campaign on syphilis), 392
Tumor Institute—Coutard and Cheatle come to Chicago, 1459
CHICKENPOX, relation to herpes zoster, [Stern] 747—ab
CHICKENS, paralytic infection; relation to poliomyelitis, 144
sex of chicks be changed? 1659
CHIGGERS: See Trombiculosis
CHILDBIRTH: See Labor
CHILDREN: See also Adolescence; Girls; Infants; Pediatrics; names of specific diseases as Cancer; Rickets; Syphilis; Tuberculosis
Adoption: See Adoption
Child Neurology Research of Friedsam Foundation, report, 140
Children's Aid Society wards undergo syphilis tests, Illinois, 363
Children's Bureau: See also Index to Organization Section
Children's Bureau (E. F. Daily new division director) 217; (positions with), 1917
Crippled: See Crippled
Handicapped: See Handicapped
Institute on Exceptional Child, 1372
preschool, health, [Henderson] 909—ab
punishment, (flogging) 598; 1137
school, alcoholism in, 1827
school, danger from lead in colored chalks, [Jephcott] 1488—ab
school, diet for, 1136
school, hearing tests, [Newhart] •839
school, nutrition of [McLester] •838
school, physical examination, [Rogers] •842
slowness in, 154
Stuttering: See Speech disorders
welfare (centers), Italy, 519
welfare, International Congress for Protecting Children, 291; 1136
welfare, Social Security Act grants, 879—E
CHINESE, 40 days' constipation in, [McCandless] 150—C

CHINESE-JAPANESE WAR, British missionary hospitals service to wounded, 1288
Chinese, cholera in, 1051; 2142—E
CHIROPRACTOR, suspended sentence, 214
CHLORIDES: See Ammonium chloride; Calcium chloride; Sodium chloride; etc.
CHLORINATED hydrocarbons, industrial hazard, [McConnell] *763
CHLORINE: See also Medicolegal Abstracts at end of letter M
sterility in pulp workers from, 378
toxicity of Halowax and chlorinated naphthalenes, 1386
CHLOR-ISO-OCTYL-RESORCINOL, Disinfectant I, 1368—E
***di*CHLORO-DI-FLUOROMETHANE (Freon), used in air conditioning, toxicity of, 1567**
***tetra*CHLOROETHANE, industrial hazard, [McConnell] *763**
***di*CHLORO-ETHYL SULFIDE (mustard gas), consuming food contaminated with, 1291**
late effect on eye of war injury, 516
***di*CHLOROETHYLENE, industrial hazard, [McConnell] *763**
***tetra*CHLOROETHYLENE, industrial hazard, [McConnell] *763**
Treatment: See Oxyuriasis
***tri*CHLOROETHYLENE, industrial hazard, [McConnell] *763**
toxicity, 810
CHOANA, congenital occlusion, [Anderson] *1788
CHOC-LADE (Dairy Drink Powder), 277; (Chocolate Flavored Drink) 1455
CHOCOLATE flavor, Kingco, 587
CHOLANGEITIS: See Bile Ducts, inflammation
CHOLAX Brand Sylvia Effervescens Salts Phosphatis Comp. (Kelvan), 1832—BI
CHOLECYSTECTOMY: See Gallbladder
CHOLECYSTOGRAPHY: See Gallbladder, roentgen study
CHOLERA, in China, 720; (Seven Who Fled), 957—E; 1051; 2142—E
vibrio in water, tartaric acid destroys, [Violle] 1587—ab
CHOLESTEROL, cause of atherosclerosis, [Leary] 1382—C
in Blood: See Blood
in erythrocytes in pernicious anemia, 434—E
metabolism in glycogen storage disease, [Beumer] 750—ab
metabolism in multiple sclerosis, [Frisch] 177—ab
quantitative variations in gallbladder wall, 371
CHOLINE Treatment: See Myasthenia gravis
CHOREA, acute, procaine hydrochloride block for, [Balkan] 544—ab
clinical study, [Chang] 627—ab
minor, calcium acetylsalicylic acid for, [Pearson] 80—ab
treatment, fever, Kettering hypertherm, [Barnacle & others] *111; [Kendell] 2020—ab
virus, rôle in rheumatic diseases, [Eagles] 1585—ab
CHORIOMENINGITIS, lymphocytic, [Dominick] *247 (virus) [Armstrong & Woodey] *410
CHORIONEPITHELIOMA, diagnosis, syncytial reaction of pregnancy, [Cholmer & Notes] *1628
in males, [Bankoff] 832—ab
CHOROID cancer, radon for, [Evans] 1583—ab
CHRISTIAN-WEBER Disease: See Panniculitis
CHROME green toxicity, 813
CHROMIUM plating, disease from, 1922
CHRONAXIA: See Nerves; Muscles
CHYLE Injection: See Chylothorax
CHYLOTHORAX, superior vena cava ligation and, [Robinson] 1577—ab
traumatic, aspirated chyle intravenously for, [Bauersfeld] *16
CHYME, tissues defense against, in peptic ulcer, [Carlson] 312—ab
CICATRIX ectropion, correction, 2160
CIGARET: See Tobacco
CINCHOPHEN, jaundice, [Boros] *113
toxic drugs, [Soper] 294—C
CIRCULATION: See Blood
CIRRHOSIS: See Liver
CITADEL, Cronin's, 956—E
CIVIL SERVICE: See United States
CIVILIAN Conservation Corps, physicians wanted for, 1917
CLAMS, prohibit sale, Calif., 1369
CLAUDICATION, intermittent, in arteriosclerosis, [Veal] 1845—ab
CLAVICLE, fractures, old ununited, [Berkheiser] 313—ab
CLEVELAND Exposition, health exhibit, 215
CLIFTON'S Brazilian Herbs, 1060—BI
CLIMACTERIC: See also Menopause
male, is there any? 977
CLIMATE: See also Arctic; Seasons; Weather
American Clinical and Climatological Association, 1135
in arthritis, 1143
in pulmonary tuberculosis, 1299
in relation to coronary thrombosis, [Rosahn] 1294—C; [Master] 2157—C
in relation to general health and specific diseases, 34—E
CLIMATE—Continued
Society of Hydrology and Medical Climatology, 219
subtropical, transporting rheumatic fever patients to, [Jones] 1308—ab
tropical, acclimatization to; Italians in Africa, 42
CLINIC: See Cancer; Dental; Encephalitis; Fractures; Handicapped; Pneumonia; Rheumatism; etc.
CLINICAL Laboratory: See Laboratories
Orthologic Society, silver jubilee, 1051
research, Medical Research Council promotes, 441
teaching, clinic-hospital-university agreement, Rome, 1378
CLINICIAN and serologic test for syphilis, 134—E; [Wiener] 294—C
CLIX Shortening, 1043
CLORAL Hair Dye, dermatitis from, 2009
CLOTHING, court claims for dermatitis produced by, 286
COBEFRIN, chemical formula, *2065
COBRA Venom Treatment: See Arthritis; Paralysis agitans
COCAINE solution, sterilization; preservation, 977
COCCIDIOIDES, "valley fever" caused by, [Dickson] 66—C; 1737—ab
COCCYGODYNIA, relief by massage, [Thiele] *1271
COCCYX, painful, [Duncan] 309—ab
COD LIVER OIL Concentrate Tablets-Merrell, 209
dosage for infants and adults, Council recommendation, 507
to prevent dental caries in pregnancy, (reply) [Gordon] 733
Treatment: See Ulcers; Wounds
COELOTHELIOMA, epicardiac, [Andolf] 998—ab
COFFEE: See also Caffeine
decaffeinized in gastric diet, [Bernay] 1942—ab
effect on alcohol in blood, [Koopmann] 243—ab
effect on basal metabolism, 1466
COFFMAN, H. J.: See Index to Organization Section
COITUS, delayed or absent orgasm, 1473
period of potency in man, 891
tuberculous epididymitis and, 977
COLCHICINE, effect on blood coagulation, [Loloeq] 1493—ab
COLD: See also Arctic; Freezing
effect, in multiple sclerosis, [Simons] 1400—ab
Pressor Test: See Blood Pressure
COLDS: See also Medicolegal Abstracts at end of letter M
host susceptibility to, [Spiesman] 1575—ab
masks and isolation, 1386
nostrum, Pico's, 449—BI
prevention, oral vaccines, Entoral; Catarrhal Oravax-Merrell, 208; 1130—E; [Richter] 1926—C
prevention, vaccines, 1217; (industrial value) [Bristol] 1848—ab
treatment, linoleic and linolenic acids (vitamin F), [Boyd] 744—ab
vaccine, results, [Houser] 1577—ab
COLECTOMY: See Colon surgery
COLITIS, Amebic: See Amebiasis
diagnostic intradermal reaction with bowel antigen, [Paulson & Kravetz] *1880
liver insufficiency in, [Binet] 241—ab
mucomembranous enterocolitis, intestinal trichomoniasis with, [De Muro] 1320—ab
spastic, calcium orally in, [Fillion] 2172—ab
ulcerative, aluminum hydroxide and kaolin for, [Eyerly & Breuhaus] *191
ulcerative chronic, thrombophlebitis complicates treatment, 1219
ulcerative, control rectal bleeding with kaolin, liquid petrolatum and aluminum hydroxide, [Fradkin] 464—ab
ulcerative, fever therapy, [Ferguson] 2017—ab
COLLAPSE THERAPY: See Pneumothorax, Artificial: Tuberculosis, Pulmonary
COLLEGE: See University
Graduates: See Graduates
Medical: See Schools, Medical
Students: See Students
COLLENS-Wilensky Intermittent Venous Occlusion Apparatus, 131; *2125
COLLES Fracture: See Radius
COLLINS Oxy-o Open Top Oxygen Tent, 793
COLLODION substitute; latex, [Narat] *655
COLON, RICARDO, death, 2002
COLON: See also Colitis
atonic, effect of mecholyl, [Myerson] 239—ab
cancer, 69
cancer of transversed colon, masked forms, [Cade] 1237—ab
diverticulitis and diverticulosis; [Brown & Marcley] *1328; (relation to cancer) *1330; (incidence) [Kocour] 1397—ab
endometriosis, [Cattell] 745—ab
irritable, vs. chronic cholecystitis, [Wilkinson] *1012
megalocolon, Hirschsprung's disease, [Bate] 1939—ab
COLON—Continued
megalocolon with megaloureter, [Hepler] *1402
surgery, colectomy or exclusion with ileostomy, [Whittaker] 84—ab
surgery, colectomy (right) for malignancies, mortality, [Allen] *923
COLON BACILLUS: See Bacteria
COLONIAL Flour, 277
Medicine: See Medicine, colonial
COLOR, testing sensitivity of eye to, especially street lights, 442
vegetable coloring matter, action on skin, 1838
COLOR BLINDNESS, heredity, 455
tests, 1136
COLORADO Medicine: See Journals
COLORIMETER, Photo-Electric: See Blood carotene
COLUCCI, CESARE, 1378
COLUMBIA UNIVERSITY, (consultants on cancer research) 139; (grants for medical research) 215; (Frank fellowship) 594; (short graduate courses) 963
COMA: See also Diabetes Mellitus
definition, in insulin-hypoglycemic therapy, [Brody & Hayman] 1833—C
COMBS: See Celluloid
COMMITTEE of Physicians (self-appointed) proposals on state medicine, 1280—E; 1720—E; 1816—E
on Evaluation of Serodiagnostic Tests for Syphilis: See American Committee
COMMONWEALTH Fund: See Foundations
COMMUNICABLE DISEASES: See also Infectious Diseases
control (in schools) [Ferrell] *835; (in private practice), [Stewart & Platou] *1520
in China, [Heu] 911—ab
COMPENSATION: See Workmen's Compensation Acts
of Physicians: See Medicolegal Abstracts at end of letter M
COMPLEMENT Fixation Test: See Amebiasis; Antihormones; Trypanosomiasis; Wassermann Test
COMPOUNDS, U. S. Food and Drug Administration to regulate naming, 715—E
CONCEPTION: See Fertility
CONDOL, 132
CONFERENCE: See American; International; National; list of societies at end of letter S
on "Better Care for Mothers and Babies," U. S., 1997
on Health Education for the Public: See Index to Organization Section
on Rheumatic Diseases: See American Rheumatism Association
CONGO RED TEST: See Amyloidosis
Treatment: See Anemia, Pernicious; Cancer, treatment; Sprue
CONGOIN, 2005—BI
CONGRESS: See also American; International; National; list of societies at end of letter S
Australasian Medical Congress, 1555
of French Alienists and Neurologists (forty-first), 1054
of German Neurologists and Psychiatrists, 2153
of German Orthopedic Society, 1737
of German Otorhinolaryngologists, 804
of Latin Nations on Otorhinolaryngology, 290
of Railway Surgeons, 961
of Sport Physicians (first), 1292
U. S., Medical Bills in: See Legislation
CONJUNCTIVITIS, proteus, [Zuccoli] 1320—ab
treatment, quinine locally, [Robinson] 990—ab
CONSCIOUSNESS, sudden loss, as cause of auto accidents, 1057
CONSTIPATION, 40 days' in Chinese, [McCandless] 150—C; (reply: year's duration) [Goodman] 809—C
prevention, bran, [Dimock] 240—ab
CONSTITUTION, neuropathic, and heredity, committee report, 1991—E
physique (national), England, 441
physique of unemployed young men, 136—E
tuberculin reaction (positive) relation to, [Weisman] *1445
CONTACT Dermatitis: See Dermatitis venenata
Lenses: See Glasses
CONTAGIOUS DISEASE: See Infectious Diseases
CONTRACEPTION: See Birth Control
CONTRACT: See Index to Organization Section
Practice: See Medicine
CONVALESCENT Serum: See Serum
CONVULSIONS: See also Eclampsia; Epilepsy
after lumbar puncture, 1385
in infancy, 295; 1136
Therapeutic: See Dementia Praecox
COOK COUNTY: See Hospitals
COOKING: See also Heat, effects
utensils, lead poisoning from, [Sein] 2105—ab
COOLEY'S Disease: See Anemia, erythroblastic
COOPER, W. W., "cancer specialist" enjoined, 1914
COPELAND BILL (S 5): See also Index to Organization Section
scope, 1546—E

V 1 193

COPPER Morrhuate: See Tuberculosis, Pulmonary, treatment
plating, nasal septum perforation in, [Barsky] 466—ab
Treatment: See Diabetes Mellitus
COPROPORPHYRIN: See Feces
CORNEA: See also Keratitis
immunity, irradiation stimulates, 516—E
ulcer, dendritic, (in herpes facialis) [Neame] 624—ab; (pituitary solution for) 976
CORNIL, LUCIEN, dean at Marseilles, 1054
CORNS, treatment, radium; blisters resulting 1064
CORONARY Arteries: See Arteries
CORONERS to be lawyers or physicians, England, 515
CORPORAL Punishment: See Children
CORPORATIONS: See Medicolegal Abstracts at end of letter M; Index to Organization Section
CORYZA: See Colds
COSMETICS: See also Index to Organization Section
A. M. A. Advisory Committee on Advertising of, decision on "non-allergic," 1723
Helena Rubinstein invades "health field," 65—BI
poisoning from lipsticks, etc., 2078
vitamins in, 509—E
COUGH: See also Sputum (cross reference); Whooping Cough
nostrum, Pino's, 449—BI
treatment, expectorants, [Brown] *268
COUNCIL, A. M. A.: See American Medical Association
COURT: See also Medical Jurisprudence
juvenile, great value, 1137
COUTARD'S Method: See Cancer treatment
COUTO, MIGUEL, monument to, 147
COWPOX, "milker's warts," [Bonnevie] 85—ab
outbreak, New York, 718
COWS: See Milk
Tuberculosis in: See Tuberculosis, bovine
COZZINS New Formula for Asthma, 1653—BI
CRANIUM: See also Brain; Head; Scalp
asymmetry, after childbirth, 1743
fracture, behavior after operation, 1659
fracture involving sinuses and mastoids, [Coleman] *1613
fracture of base, surgery in, [Fehr] 1766—ab
fracture (postmortem), can heat produce, 525
healing in primordial and flat bones, [Roegholt] 398—ab
injuries, classification, [Moore] *889
osteoporosis (circumscribed), [Kasabach] 235—ab
Pressure in: See Intracranial Pressure
tumors, unusual types, [Pilcher] 579—ab
CREAM: See also Ice Cream; Massage
Roller Extract Flour, 1455
CREATINE excretion in infancy, [Catherwood] 620—ab
CREATININE excretion in infancy, [Catherwood] 620—ab
in Blood: See Blood
CREMATION, progress; International Congress, 1463
CRESOL, drinking, in highball, anuria from, nephrostomy for, [Livermore] *1528
*ortho*CRESYL phosphate, industrial hazard, [McConnell] *764
CRETINISM in London, [Lewis] 910—ab
CRIME prevention, International Congress on Infantile Psychiatry, 1289
CRIMINALS: See also Prisons
Austrian insanity law revised, 1465
CRIPPLED: See also Handicapped; Poliomyelitis
arthritic, surgical reconstruction, [Wilson] 1229—ab
children, (Nemours Foundation for treatment and care) 281; (survey, California) 363; (grants for work under Social Security Act) 879—E; (advisory board for, Texas), 1916; (aid for, Conn.), 2074
CROHN'S DISEASE: See Ileitis
CRONIN, A. J., THE CITADEL, 956—E
CROSLEY Xervac, 1635
CROUP: See Pneumonia, croupous
CROUZON Professor, 1648
CROWLEY, WILLIAM B.: See Index to Organization Section
CRUISE: See Pan American
CRYPTORCHIDISM: See Testis, undescended
CUBE, toxicity, 1836
CUETO, A., Crosley Xervac, 1635
CULLEN'S SIGN: See Pancreatitis
CULTS: See also Chiropractor; Naturopathy; Osteopaths
bill to prohibit, France, 57
CULTURE: See also Bacteria; Bone Marrow
method of viscera in Lindbergh apparatus, 1210
CURARINA De Juan Salas Nieto, 2156—BI
CUSHING'S SYNDROME, [Mencher] *1338
CUTASY Laboratories, Inc., Pomay B. T. 1142—BI; (correction) 1373; [Reed] 1654—C
CUTIS Verticis Gyrata: See Scalp
CYANOSIS, acrocyanosis, [Stern] 1763—ab
from sulfanilamide, [Marshall] 1314—ab
CYCLOREXANOL, industrial hazard, [McConnell] *764
CYCLOTRON, Comstock prize to inventor, 1823
CYSTINE tests in nails, 68
CYSTITIS: See Bladder inflammation
CYSTOCELE: See Bladder
CYSTOMETRY: See Bladder
CYSTS: See Endometrium; Ovary; Sebaceous Glands
Air: See Lungs, cysts
Endometrial: See Ligament, uterosacral
CYTOLOGY: See Cells
CZECHOSLOVAKIA: See Index to Organization Section

D

DABON Brushless Modern Shaving Cream, 2085—BI
DACTYLITIS: See Fingers
DAIRY Products: See Ice Cream; Milk
DALAND Foundation: See Foundations
Hexatocrit: See Erythrocytes volume index
DALGININE Capsules, 1060—BI
DALLEY'S Pain Extractor, 1925—BI
DANIELL, BAMPFYLDE, death, 61
DARK Adaptation Method: See Vitamin A
DAVIES, W. T. F., honored, 61; 1377
DAVIES-BINTON Test: See Syphilis, serodiagnosis
DAVIS, J. C. B., slayer sentenced to hang, 429
DAYLIGHT: See Light
DEAD BODIES: See Cadavers; Cremation; Death; Embalming (cross reference)
DEAFNESS: See also Hearing
Commission to study problems of hard of hearing, New York, 365
complete, after electric shock, 894
Hearing Aids: See Hearing
in early childhood, 809
in late congenital syphilis, [Cole] *580
prevention after meningitis, [Eagleton] 823—ab
problems in education, [Newhart] *839
treatment, vitamin B, 1230
DEATH: See also Cadavers; Cremation; Embalming (cross reference); Suicide; list of Deaths at end of letter D; Medicolegal Abstracts at end of letter M
can heat produce fracture of skull and hemorrhage after? 525
cause, uncertain, 154
from freezing, swelling and discoloration not signs of, 1299
sudden, adrenal pathology in, [Simpson] 87—ab
sudden, in 18 month old infant, 1221
sudden, in pulmonary tuberculosis, [Bonnamour] 1319—ab
time of, determination, [Mueller] 750—ab
DEAVER, JOHN B., street named for, 800
DEE-KM Capsules, 606—BI
DEFICIENCY DISEASE: See also Nutrition; Scurvy; Vitamins; etc.
syndrome in alcoholism, [Romano] 2096—ab
DEFORMITIES: See also Bones; Crippled; Handicapped; Head
progression, [Stump] 1396—ab
DEGREES: See University
DEHYDRATION of food and electrical refrigeration, 1386
DELEEUW Collection: See Skin
DELINQUENCY, juvenile, 723
DELIRIUM Tremens: See Alcoholism
DELOUSING: See Pediculosis
DEMIELINATING PARALYTICA, polypeptides in, [Claude] 1237—ab
tabetic form, treatment, 1834
tartiarism after malarial and recurrent fever therapy, [Pilz] 244—ab
treatment (1920-1933), 369
treatment, [O'Leary] *1164
DEMENTIA PRAECOX, shut-in personality, 1687—ab
habits of adjustment, 1889—ab
treatment, induced epileptic convulsions with metrazol or camphor à la Meduna, [Finiefs] 1052—C; [Kraus] 1240—ab; [Wortis] 1470—C; 1563; [Kastein] 1863—ab; [Ellery] 2106—ab; 2152
treatment, insulin shock, [Larkin] 85—ab; (vitamin B, and Bc in) [Freudenberg] 95—ab; 219; [Morse] 465—ab; (stuporous conditions after) [Salm] 833—ab; [Finiefs] 1082—ab; (interruption in) [Hunt & Feldman] *1119; [Cameron & Hoskins] *1246; [Lemere] 1401—ab; (vs. metrazol) [Wortis] 1470—C; (insulin subcutaneously or intravenously) 1567; (definition of coma in) [Brody & Hayman] 1833—C; (position for) [Robinson & Lamm] 1834—C; (Kastein) 1862—ab; (dextrose in) 2089; (electroencephalogram) [Hoagland] 2096—ab; [Ellery] 2106—ab; 2152
treatment, technic of Muniz's cerebral leukotomy, [Mattos Pimenta] 91—ab
treatment, theelin, in climacteric, [Ault & others] *1787
treatment, "total transfusion," [Reiter] 1862—ab
DENGUE, etiology, [Coles] 1763—ab
DENTAL Caries: See Teeth
Eastman Clinic, Paris, 1917
Fillings: See Teeth
DENTAL—Continued
Infection: See Teeth
Lesions: See Teeth
Practice: See also Medicolegal Abstracts at end of letter M
practice, use of amytal before procaine in, 455
DENTIFRICES, potassium chlorate in, 455
sodium perborate, injurious burns from, 731
DENTISTS, number, Japan, 2154
DEPOPULATION: See Population
DEPRESSION: See Mental Depression
DERMAGRAPH: instrument for localizing pain, [Stern] *246; [Wartenberg] 1294—C
DERMA-LENS, 65—BI
DERMATITIS: See also Eczema; Neurodermatitis; Urticaria
between fingers, 226
exfoliative, and psoriasis, 153
exfoliative, from iodine, [Seymour] 463—ab
exfoliative, from sulfanilamide, [Myers & others] *1983
factitious, or ecthyma, 2010
fatty acids and, [Ginsberg] 2018—ab
from clothing, court claims for increase, 286
from hair dye (Oloxo), 286; (Cloral) 2009
from torch oil, [Kammer & Callahan] *1511
gold, finger nails changes after, [Belinfante] 398—ab
herpetiformis, 732
Medicamentosa: See Arsphenamine; Quinine; Sulfanilamide
seborrheic, of eyelids, 810
venenata, "blisters" on legs and feet probably due to weeds, 812
venenata from Dictamnus albus (gas plant) [Cummer & Dexter] *1495
venenata, Spanish moss, [Metzger] 1076—ab
DERMATOLOGY, American Academy of, A.M.A. committee on establishing, 44; (organized) 1208; 1916
American Board of, (examination) 1823
International Congress of (tenth), in New York, 44; 1134; (to publish atlas) 1733
Investigative, Society for, 440
prize offered by French Society, 965
Società di Dermatologia e Sifilografia, 291; 1920; 2153
DERMATOSIS: See Skin disease
DERRIS, possible toxicity, 1836
DESENSITIZATION: See Eczema; Hay Fever
DESERT Fever: See Erythema nodosum
DETROIT *Free Press*: See Newspapers
Plan: See Tuberculosis
DEVIL'S GRIP: See Myositis, epidemic
DEWEES Carminative, 1060—BI
DeWITT'S Cough Syrup; Vaporizing Balm, 2085—BI
DEXENE, 2156—BI
DEXTROSE, antiketogenic action, [Markees] 915—ab
dosage forms, Abbott Laboratories, 658
in shock treatment of dementia praecox, 2089
infusion fluids, new method of preparing, [Co Tui & others] *250
oxidation in normal and diabetic, [Sheldon] 2100—ab
tolerance in aged, [Deren] 1157—ab
DIA-BET, 1655—BI
DIABETES, BRONZE: See Hemochromatosis
DIABETES INSIPIDUS, treatment, roentgen, [Cognolini] 1943—ab
DIABETES MELLITUS: See also Medicolegal Abstracts at end of letter M
blood carotene content, photo-electric colorimetric estimation, [Stueck & others] *243
blood sugar in children, [Kantrow] 2095—ab
carbohydrate metabolism, effect of anterior pituitary extract, [Lasen] 2116—ab
coma, rest nitrogen in, [Göpfert] 1943—ab
complications, arteriosclerosis obliterans, treatment, [Collens & Wilensky] *2128
complications, circulatory, [Radnal] 731—ab
complications, gangrene, tetanus, 144
complications, gangrene, buffered sodium citrate-chlorides for, [Jablons] 522—C; (reply) [Bernheim & London] 523—C
complications, pernicious anemia, [McGregor] 1855—ab
complications, tuberculosis, [Dunlop] 394—ab
complications, tuberculosis predisposes to diabetes, [Schedler] 914—ab
complications, xanthoma tuberosum in tile setter, [Sugg & Stetson] *414
definition, Joslin's, 892
dextrose oxidation in, [Sheldon] 2100—ab
Diet: See Diabetes Mellitus, treatment
hormones effect on, 1657
in children, ketonemic vomiting in, [Hungerland] 2106—ab
in pregnancy, [Tamis & Clahr] *198; (slight glycosuria) 1745
increase, relation of higher fat diet vs. sugar consumption, [Sinskind] 631—ab
insulin, allergy to, 732
insulin in, Brady misrepresentations, 1282—E
insulin in, life expectancy with, 812
insulin overdosage in elderly causes angina pectoris, [Jordan] 1079—ab
insulin protamine in [Smith] 84—ab; [Joslin] *497
insulin, protamine zinc and carbohydrate tolerance, [Greenhouse] 2099—ab

DIABETES MELLITUS—Continued
insulin protamine zinc control in surgery, [Fowler] 309—ab
insulin requirements, copper to reduce, [Schmetz] 177—ab
mortality rate, 380
nostrum, Carr Laboratories, 225—BI
nostrum, Special Treatment for Diabetis, 1832—BI
of skin, phagedenic ulcer on basis of, [Urbach] 1767—ab
research, Renziehausen Memorial Ward and Clinic, Pittsburgh, 963
sodium chloride intake increased in, 455
surgery in relation to, [Abell] 238—ab
trauma in relation to, 1474
treatment, 1298
treatment, oral, 812
treatment, passive vascular exercise harmful, [Edelen] 907—ab
treatment, vitamin B, Brady on, 1282—E
weather and, 229
DIABETES RENAL, [Munch-Petersen] 1410—ab
DIAGNOSIS: See under names of specific diseases; Index to Organization Section
Case History: See Case
DIAPHRAGM Paralysis: See Paralysis
subdiaphragmatic infection, complications, [Coope] 1586—ab
traumatic rupture, [Goodman] *1980
DIAPHRAGMATIC SPASM: See Myositis, epidemic
DIAPLEX, 2085—BI
DIARRHEA: See also Dysentery
complicating melena neonatorum, raw apple diet for, [Corcoran] 166—ab
epidemic, of new-born in hospital nurseries, [Rice & others] *475
in children, apple treatment, Council report, 1636
salt and intestinal flora, 1047—E
DIATHERMY, Aloe Portable Short Wave Diatherm, 586; 793
Burr SW-15 Short Wave Radiothermy and Electro Surgical Unit, 951
Beck-Lee De Luxe Duo-Therm, 432
books on electrotherapy and electrocoagulation, 885
Burdick SWD Magnetherm, 874
Fischertherm Short Wave Diathermy Unit, 272; (8Super) 2064
High Tension, 267
Lepel SWP Portable Short Wave Machine, 1364
Majestic Portable Surgical Unit, 1042
Majestic Ultra Short Wave Unit, 586
Rose CW Radiothermy Unit, 1724; 1905
short or ultrashort wave modify bacteria and yeast, [Wertheim] 1496—ab; (tubercle bacilli) [Mennitis] 1494—ab
short wave, 1218
short wave action: therapeutic indications, [Schliephake] 834—ab
short wave irradiation impair germinal factors? 887
short wave provocative diagnosis of dental infection, [Gutzeit] 543—ab
Short Wave Treatment: See also Arteriosclerosis; Joints, disease; Stomach secretion
short wave treatment, cause of complications, [Liebesny] 630—ab
short wave treatment effect on stomach, [Neldhardt] 996—ab
short wave treatment in various diseases, first International Congress discuss, 1139
Treatment: See Blood Pressure, high; Diathermy, short wave; Fallopian Tubes; Sinusitis
DIATONE, 2085—BI
DIBENZANTHRACENE: See *di*Benzanthracene
DICK Test: See Scarlet Fever
DICTAMNUS albus (gas plant), dermatitis from, [Cummer & Dexter] *495
DIESEL engine fuel oil penetrates tissue, [Rees] *866
DIET: See also Food; Infants, feeding; Nutrition; Vitamin; etc.
American Dietetic Association, 1208
Apple: See Diarrhea
British, what is wrong with it? 2149
calory (low) in obesity, vitamins needed in, 610
effect on damage by aminopyrine, [Miller] 1314—ab
effect on morphine habit, [Amsler] 1240—ab
effect on renal calculi, case of South African Negro, [Vermooten] *857
effect on resistance to infection, [Watson] 993—ab
effect on sterility, growth and survival, [Watson] 993—ab
for children of school age, 1136
Indian, effect of supplements, [Aykroyd] 1081—ab
Ketogenic: See also Epilepsy
ketogenic, and colon bacilli, 228
ketogenic, as urinary antiseptic, [Walther] *1001
mystery of growth, 1056
nephritis and, 1202—E; [Howard] 1654—C
Salt-poor: See Salt
DIET—Continued
Therapeutic: See Diabetes Mellitus; Fistula, pancreatic; Migraine; Urinary Tract infections
DIETENE, 1043
DIETHYLENE Dioxide: See *di*Ethylene dioxide
Glycol: See *di*Ethylene Glycol
DIGESTIVE TRACT: See also Gastro-Intestinal Tract
tumors, sedimentation speed in, [Stengel] 93—ab
DIGITALIS: See also Gitalin
in body fluids, [Schnitker] 1074—ab
McNeil, dosage forms, (correction), 276
N. N. R., dosage forms accepted, 433
preparations, clinical efficacy, [Stroud & Veer] *1808
protect against diphtheria toxin? [Edmunds] 1670—ab
treatment contraindicated in mother nursing child? 731
Upsher Smith, dosage forms of, 29
DIHYDROXYACETONE: See *di*Hydroxyacetone
DINITROPHENOL: See *di*Nitrophenol
DIODRAST, use in arteriography, [Bird] *1626
DIOXANE, chemical formula, 1725
industrial hazard, [McConnell] *765
DIOXYACETONE: See *di*Hydroxyacetone
DIPHTHERIA antitoxin, paralysis after giving, 154
antitoxin response to antigens in children, [Fraser] 2019—ab
antitoxin, tetanus antitoxin not substitute for, 1474
bacillus in feces, [Ciantini] 1083—ab
diagnosis, in immunized, [Reh] 628—ab
heart after severe form, [Thompson] 235—ab
heart in: electrocardiogram, [Szczeklik] 752—ab
immunization, 370; [Stewart & Platou] *1520; (dosage; technic) 2081
immunization, alum toxoid in children over 8, 299
immunization, alum toxoid, single injection, [Straus] 464—ab
immunization, duration by various methods, [Park] *1681; (correction) 1997
immunization in nurses at Ruchill Hospital, [Anderson] 910—ab
immunization, new diluted Schick fluid in, [Merrillees] 1492—ab
myocarditis, [Begg] 87—ab
necrotic, vitamin C therapy, 601
of skin, producing abscesses, 732
paralysis, (after antitoxin) 154; (serotherapy) [Cruchet] 2171—ab
Römer test, 291
serum (sheep) treatment of meningitis, 804
specimens (collected swab), [Lenz] 92—ab
toxin, digitalis protect against? [Edmunds] 1670—ab
toxin, dilutions, regulation, 289
Toxoid-Tetanus Toxoid, Alum Precipitated, Lilly, 29
treatment, strychnine (large doses), [Paisseau] 2171—ab
DIPLOBAL (Salysal), 1906
DIRECTORY: See Index to Organization Section
DIRT: See Dust
DISABILITY: See also Index to Organization Section
insurance fraud: heart disease racket, 34—E
professional, of radiologists, 888
DISEASE: See also Death: under names of specific diseases; Medicolegal Abstracts at end of letter M
Carrier: See Paratyphoid; Typhoid
emotional factors in, [Swanton] 394—ab
fight against, through the ages, 2081
Industrial: See Industrial
Rate: See Vital Statistics, morbidity reportable, (spotted fever, psittacosis, Maryland) 1285; (industrial, Michigan) 1994
Rockefeller Institute investigation, 1550
sickness removes the mask, 6—ab
vitamin A reserves in, 590—E
DISEASES OF THE CHEST: See Journals
DISFIGUREMENT: See Medicolegal Abstracts at end of letter M
DISHIDROSIS, dermatitis between fingers, 227
DISINFECTANT I (chlor-iso-octyl-resorcinol), 1368—E
DISLOCATION: See Hip Joint; Shoulder; Spine
DISTENSION, Abdominal: See Flatulence
DITMAN'S Sea Salt, 1741—BI
DIURESIS, antidiuretic hormone of posterior pituitary, 1545—E
mercupurin, mersalyl and mercurin compared, [Herrman] 167—ab
mercurial, 2007
Mercurin, N. N. R., 133
rapid, dangers, [Barker] 1852—ab
DIVERTICULITIS: Diverticulosis; Diverticulum: See Appendix; Colon; Esophagus; Intestines; Stomach
DIVORCE and homosexuality, 802
DIZZINESS: See Syncope; Vertigo
DOCTORS: See also Physicians
degree, Jews excluded from receiving, Germany, 445
DOGS: See also Medicolegal Abstracts at end of letter M
alterative for man and, 455
Leptospira canicola epidemic, [Roos] 632—ab
rabies, 297; (immunizing) 377
"typhus" or Stuttgart disease, 228
worms in; danger to man, 455
DONAGGIO REACTION, after operation, [Perazzo] 469—ab
DONATIONS: See Foundations; Hospitals; Scholarships; etc.
DONLEY-EVANS and Co. citra-lactate solution of sulfanilamide, 1567
DONORS: See Blood Transfusion
DOVOLA nostrums, 1832—BI
DRESSINGS: See also Medical Supplies
insulating patches from fetal membranes, [Johnson] 538—ab
latex substitute for collodion, [Narat] *655
DRINKER Respirator: See Respirator
DRIP Method: See Blood Transfusion
DRIVERS; DRIVING: See Automobiles
DROPSY: See Amnion; Ascites; Edema
DROUGHT: See Index to Organization Section
DRUG STORES: See Pharmacy
DRUGGISTS: See Pharmacists
DRUGS: See also Medical Supplies; Pharmacopeia; Medicolegal Abstracts at end of letter M; Index to Organization Section
"bottle habit" under insurance system, England, 1646
control legislation (new) needed, 1546—E; [Beall] 1561—C; (proposed) 1911—E; *1988
control, need of French council, 2150
dangerous promotion by detail men, [Richter] 1926—C
Dermatitis from: See Arsphenamine; Sulfanilamide
Fever: See Sulfanilamide
Food and Drug Administration to regulate naming of compounds, 715—E
toxic, [Soper] 294—ab
DRUNKENNESS: See Alcoholism
DUCREY Vaccine: See Vaccines
DUCTLESS GLANDS: See Endocrine Glands
DUHAMEL, GEORGES, honored, 145
DUKE University, 963
DUKE-FINGARD method, 794—E
DUNN'S Diamond "D" Brand Gelatins, 1637
DUODENAL TUBE, fatal gastric suction by, [Taylor] *267
DUODENUM contents inflow into bile ducts, [Baastrup] 322—ab
disease and splenomegaly, [Volterra] 1588—ab
pathologic physiology, [Walters & others] *1591
tuberculosis, [Grossman] 748—ab
Ulcer: See Peptic Ulcer
DUO-THERM, Beck-Lee, 432
DUST: See also Bentonite; Sawdust
house dust asthma and abdominal distention, 892
Respiratory Disease Caused By: See Pneumoconiosis
street, tetanus bacilli isolated from, [Gilles] *181
tarred road, and primary lung tumors, [Campbell] 624—ab
DWARFISM in children, anterior pituitary plus thyroid extract for, [Jacobsen & Cramer] *1161
DYES: See also under names of specific dyes as Congo Red
azo dye therapy as urinary antiseptic, [Walther] *1001
Hair: See Hair
Test: See Gallbladder calculi
toxicity of aniline, 2158
toxicity of yellow OB, [Climenko] *193
DYNAMITE explosions, toxic gases from, 1217
DYSENTERY: See also Diarrhea
Amebic: See Amebiasis
anatoxin, preparation, [D'Antona] 396—ab
bacillary, at Dixon State Hospital, 1048
bacillary, caused by lactose fermenter of Duval, acidophilus diagnostic method, [Silverman] *1624
bacillary, epidemic, 464—ab; (Japan) 2154
bacillus in water, tartaric acid destroys, [Vieille] 1587—ab
in children, [Blacklock] 1405—ab
serum (polyvalent), New York State discontinues, 1731
DYSMENORRHEA, 1928
treatment, cauterizing genital spots in nose, 2160
DYSOSTOSIS: See Bones growth
DYSPEPSIA, heart attacks and indigestion, 1297
DYSPHAGIA: See Swallowing
DYSPNEA, Paroxysmal: See Asthma, cardiac
treatment, oxygen also helium inhalation, [Barach] 622—ab
DYSTOCIA: See Labor complications
DYSTROPHY, adiposogenital, gonadotropic substances intramuscularly, [Plum] 1768—ab
muscular (progressive) and vitamin C, [Hirata] 996—ab
muscular (progressive), malarial therapy, [Rottmann] 752—ab
muscular (progressive), parathyroid-adrenal cortex extracts for, [Berman] 826—ab

V 1
193

DEATHS

109
37

A

Acheson, Frederick Ira, 64
Acosta, Pedro G., 2003
Acres, Louise, 64
Adams, Burdett Sheridan, 293
Adams, Edwin Melville, 2083
Adams, Frank Edwin, 604
Addington, David Morgan, 374
Adler, Harry, 2155
Albers, Frederick Martin, 1058
Alden, Eben, 1380
Aldenderfer, Clarence Elbert, 1380
Aldridge, John W., 374
Alexander, Andrew Boak, 1651
Alexander, Edgar William, 1215
Alexander, Harry Lee, 1924
Alexander, Max John, 1652
Allaman, George W., 2003
Allen, Jonathan H., 521
Allen, Robert M., 1469
Allison, Thomas Judson, 1468
Alsop, Joseph French, 2004
Alvarez, Luis Fernandez, 374
Alvis, Edward Carroll, 149
Ames, Marie A., 2084
Anderson, Alvar, 604
Anderson, Carl M., 1468
Anderson, George Randall, 1215
Anderson, Gustave E. F., 2155
Anderson, Thomas Ervin, 374
Andrews, George Dosson, 1380
Anglin, James Vickers, 1215
Anthes, Frederick Charles, 1215
Apeldorn, Ernest Frederick, 890
Appel, Theodore Burton, 520
Archambault, Jean Baptiste, 2004
Archer, John R., 2004
Armes, Geo. W., 1739
Arminen, Karl Vilhelm, 1740
Armstrong, Irving Foster, 1739
Armstrong, William John Malcolm, 2083
Arnold, Ulysses S. Grant, 2084
Ashburn, Claude Woltz, 1469
Atherton, Henry Grady, 1923
Atkins, Jessie Beaumont, 374
Atlee, Louis William, 1058
Attwood, William Gillispie, 1652
Atwood, Reuben Jay, 1059
Auger, Joseph Ernest, 1059
Avary, Archer, 1924
Avery, Jacob Fowler, 889
Ayers, Franklin De Wight, 971
Ayres, Winfield, 292

B

Babbitt, George Ashton, 1059
Babcock, Marcus E., 1831
Bacevicze, Anthony Mathew, 1469
Bacon, Lyman Bon, 373
Bader, George Washington, 1215
Bagby, Oliver, 150
Bagdadi, Zia Mabsut, 64
Bailey, Augustus Bruce, 1923
Bailey, Harry Brawley, 374
Bailey, Wilson Gill, 1469
Baker, Joseph K., 2084
Baker, Rinaldo Everett, 374
Baker, Sydney J., 1652
Balch-Holmes, Harriet Elizabeth, 1214
Baldwin, Herbert J., 1924
Ball, Charles Dexter, 889
Ballantyne, Reginald Malcolm, 970
Bamber, Richard W., 448
Barber, Eva St. Clair Osburn, 1215
Barber, Herbert Leslie, 1831
Barber, Martin C., 1651
Barber, Walter Edgar, 373
Barbour, George H., 1469
Barfield, Jesse Morton, 604
Barker, Joseph L., 374
Barkley, Archibald Henry, 603
Barlow, Walter Jarvis, 1468
Barnett, James R., Jr., 1215
Barney, Fredk. Morgan, 1652
Bartlett, John Wilbur, 1469
Bartlett, Walter E., 604
Basch, Samuel Halcomb Behrend, 1468
Bass, Harris Hartwell, Sr., 374
Bates, Amos D., 1924
Batt, Wilmer Ridgway, 1924
Baxter, Holly M., 374
Baxter, James N., 150
Baxter, Leroy Worth, 1924
Baylor, Frank W., 520
Bean, Harvey F., 64
Beardsley, Herbert V., 1652
Beardsley, John Wallace, 1652
Beck, John Edwin, 64
Becker, Chas., 374
Beclere, Henri, 1648
Beede, Clark Eli, 64
Beer, Frederick Leslie, 604
Behlow, Wm. Wallace, 63
Belanger, David Simeon, 1215
Bell, Earl, 1215
Bell, James Edward, 64
Bell, James Thomas, 1652
Bell, Joseph Alexander, 149
Bell, Mabel T., 2083
Bemis, Harvey Hay, 2083
Bennett, Benjamin H., 150
Bennette, Marie Antoinette, 1215
Bentley, Henry Rogers, 1652
Bentley, William S., 1830
Bentz, Charles August, 1214
Benzie, Clinton Anthony, 1830
Bergey, David Hendricks, 1558
Berlinger, Robert, 604
Bernard, Frank F., 64
Bernard, William A., 1293
Berns, Simon P., 2084
Berry, H. Ellen Walker, 2084
Berryman, John William, 2155
Berthiaume, Denis J. H., 1831
Bethune, Fred Hyde, 1380
Betts, Arthur, 1830
Bickford, Frank James, 1379
Biddle, James Kester, 1215
Bierhoff, Frederic, 1214
Bigony, John Francis, 889
Bill, Benjamin Jephthah, 1651
Binkley, Frederick Mills, 1059
Bird, John Thomas Joseph, 970
Biscoe, Frank Lee, 1293
Bjornson, Olafur, 2083
Black, Arthur Davenport, 2155
Black, Frank W., 1652
Black, Howard John, 1652
Black, John Wm., 1651
Black, Jotham Freathy, 604
Blackmon, Herman Isaac Edward, 2084
Blackshere, Frank R., 2084
Blaich, Julia E., 448
Blake, Jos. Augustus, 726
Blakely, Thomas B., 374
Blanchard, Frank Guy, 971
Blanton, Lewis J., 64
Blinn, Arthur Boyd, 1830
Blodgett, Abbie, 1652
Bock, Clarence Leroy, 1293
Boggs, Charles Sumner, 1652
Boivin, J. Narcisse, 1469
Boon, Wm. Thos., 64
Borck, Henrietta A. Stoffregen, 1293
Borley, William Ernest, 971
Boseman, Claude Alfred, 1293
Bovell, Alfred Ernest, 1059
Bowen, Frederick John, 1215
Bowen, Horace, 1293
Bower, Emma Eliza, 2084
Bowers, John Thompson, 604
Bowman, Harlan Page, 63
Bowman, Paul Newkirk, 63
Boyd, Clarence La Vergne, 63
Boyer, Jephtha Silas, 1831
Boylan, Walter M., 971
Bradbury, Edwin Lewis, 1059
Bradley, Henry Hobert, 1931
Bradshaw, Claude Jacob, 1215
Brandenburg, Wilbur Henry Rietz, 373
Brasington, Ernst Custeen, 1215
Bray, Charles William, 1214
Brayton, Frank Alembert, 2003
Brennan, Ambrose Kirk, 374
Bresee, Charles Harmon, 1831
Brett, Edward Joseph, 604
Brett, John Henry, 2155
Brewer, Joseph McDowell, 1831
Brewer, William J., 521
Brewster, Cora Belle, 1380
Brides, Arthur Edward, 2083
Bridges, Alvah Clayton, 2084
Bridgwater, James Erman, 64
Brinkman, George Henry, 1468
Broadrup, George Lincoln, 64
Broman, Oscar Francis, 2083
Brothers, Thomas Jefferson, 2003
Brown, Arthur Valentine, 1141
Brown, Clayton Allen, 1469
Brown, Douglas, 603
Brown, Edward V., 727
Brown, Harry Ver Brike, 970
Brown, H. Beattie, 1468
Brown, Melvin James, 727
Brown, Newbern Nuckolls, 890
Brown, Wilber Franklin, 1831
Brownell, Edward Erle, 374
Bruen, Curtis, 1469
Brunson, William Edgar, 374
Brunson, W.: See Brunson, William Edgar
Bryan, William Holmes, 2004
Bryant, Charles Sawyer, 1215
Bryant, R. W., 2084
Bryant, Willis J., 64
Bryson, Robert H., 1059
Buchanan, George, 1141
Buchanan, John Jenkins, 1468
Buchanan, Roy M., 1215
Buckman, Ernest Ustick, 726
Buel, John Laidlaw, 1923
Bullock, Frederick Dabney, 1379
Burchfield, Samuel Newton, 448
Burleson, David Patton, Jr., 448
Burnaman, William Cecil, 971
Burns, Joseph Patrick, 727
Burns, William Thomas, 971
Burnside, Chas S., 64
Busey, John F., 1652
Bush, Franklin Worthington, 374
Butterfield, Alfred Mitchell, 224
Buzby, Benjamin Franklin, 1468
Byington, Roderick, 1058

C

Cadigan, John Joseph, 604
Caldwell, John Cabeen, 373
Caldwell, William Elry, 1830
Caley, Joseph Morse, 1059
Call, Emma Louisa, 373
Call, Merlyn Bush, 1215
Camerer, John Douglas, 1652
Camp, Mary Augusta, 971
Campbell, Albert Edward, 1215
Campbell, Asa Douglass, 374
Campbell, Charles Alexander, 1215
Campbell, John Stannard, 64
Capps, James Monroe, 448
Carlton, Benjamin Harvey, 1215
Carn, William Merrick, 1141
Carney, J.M., 604
Carpenter, Alonzo L., 971
Carpenter, Frank Blish, 604
Carr, Clark McPherrin, 521
Carruth, Leander Orr, 1652
Cary, John Herschel, 1651
Cass, Henry Martin, 2003
Casselman, Simon Bismark, 1652
Caswell, Charles Oscar, 970
Cavanaugh, Thomas Edward, 1059
Ceconi, Angelo (Prof.), 62
Chapin, Walter Henry, 63
Chapman, Robert Fendall, Jr., 1469
Chenoweth, Ephraim B., 1651
Chester, John Leonard, 373
Child, Frank Malcolm, 727
Childs, Edward Payson, 521
Chilton, Leo Wesley, 2003
Chisholm, Gibbs, 2083
Chumbley, Chas. A., 64
Churchman, John Woolman, 373
Citrynell, Alfred Abraham, 2155
Clark, Charles Milton, 1214
Clark, Edwin L., 2084
Clark, Frank Butler, 374
Clark, William A., 1215
Clayton, Augustus W., 1293
Clayton, George R., 2003
Clement, James Arthur, 293
Clemmer, Joseph L., 64
Clift, George W., 1469
Clifton, George Millard, 971
Clouse, Morris Whitfield, 1652
Clover, George F. (Rev.), 594
Clyburn, William Richard, 1651
Cochems, Frank Mathias, 1831
Cochran, Owen W., 1651
Cockfield, LeRoy A., 64
Coe, Harry Carson, 604
Coffelt, Theodore Albinus, 1923
Cole, Blase, 2083
Cole, William Gilbert, 1651
Coles, Stricker, 604
Colgan, Frank John, 2155
Colgin, William Edward, 1651
Collier, Theodore Elliott, 374
Collier, Ward Alexander, 1469
Collins, Edward Everett, 971
Collins, Thomas F., 1469
Collison, Frank Jerome, 1469
Colver, Harley Ross, 1651
Colvin, Nathan Billings, 604
Comstock, Fred Walter, 1215
Conley, Frederic Warren, 604
Conley, Lawrence Parker, 373
Conlon, Frank Aloysius, 727
Conn, Caroline Connell, 1652
Connell, William Adams, 1740
Conover, Guy DeNuys, 521
Conroy, Timothy L., 1652
Conway, John H., 2084
Conway, Michael Waldon, 373
Cook, Finley Ransom, 374
Coolley, Elmer Burt, 1830
Coontz, William H., 150
Cooper, Henry Sisson, 2083
Corbit, Aileen Marjory Betteys, 1141
Cory, Kate Whipple, 64
Cosner, Philip H., 374
Cotter, Stephen Vincent, 374
Cottle, Isaac N., 2084
Cotton, George Kuester, 63
Coultas, Rufus James, 63
Coulthard, Walter Livingston, 971
Cowperthwaite, Joseph Ewing, 2084
Cox, Ernest Lee, 2083
Cox, Wiser, 1469
Coyle, David Archibald, 1469
Coyle, Wm. Penn, 1215
Craddock, Frank B., 890
Craig, Fletcher F., 971
Craig, John Eldon, 150
Cramer, Isadore Henry, 373
Crandall, Alice Huff, 1652
Crane, Bayard Taylor, 1651
Cranford, George T., 2083
Crawford, John Franklin, 64
Crawford, Malcolm McLachlan, 374
Crawford, Wm. Tilton, 64
Crocicchia, Anthony, 374
Croghan, Francis Edward, 224
Cromwell, Martin John, 1215
Crookston, Wm. Judd, 1651
Cross, Kilpatrick, 1141
Crounse, Frederic, 1559
Cryder, Ermine Stevenson, 149
Cryer, George Alonzo, 373
Cullen, George, 2083
Culpepper, Walter Fisk: See Culpepper, Wilbur Fisk
Culpepper, Wilbur Fisk, 448
Cumberworth, Ora Harland, 1141
Cummings, William A. E., 448
Cummings, William Clovis, 1924
Cunningham, Chas. Hunter, 1214
Cunningham, Charles Michael, 604
Currie, Charles A., 604
Curry, Thomas W., 1652
Curtis, Adelaide Dutcher: See Dutcher, Adelaide
Custer, Matthew Lee, 1740

D

DaCosta, Harold Fonseca, 374
D'Agostino, Joseph Martin, 604
Dailey, William Forest, 521
Dake, Charles, 890
Daland, Judson, 726
Dale, Robert Rodney, 373
Dale, William R., 1924
Daley, Daniel Francis, 63
Dalton, Eugene S., 64
Dalton, George, 971
Daly, Timothy Joseph, 1924
Danforth, Mary Shepherd, 1651
Daniell, Bampfylde, 61
Daniels, Lewis Minort, 448
Dassell, Margaret Nichols, 1380
Davelaar, Garret W., 1651
Davenport, St. Elmo, 971
Daves, Albert Charles, 1469
Davis, Charles Edward, 2084
Davis, Charles Ludvey, 1214
Davis, Fannie, 64
Davis, Francis M., 1831
Davis, Frederick F., 1215
Davis, George Young, 1379
Davis, John Lewis, 64
Davis, Lewis Ellwood, 293
Davis, Thomas Jackson, 890
Davis, Thomas S., 1830
Davison, Robert Edward, 63
Day, Howard W., 890
Deal, Sebron Edgar, 1469
De Berry, Elstner H., 1469
DeBey, Albert, 1740
Dederick, Adelbert Stephen, 1215
DeForest, William Clifford, 890
Degan, Katherine Iris Howard, 1059
Deitch, Oscar Solomon, 1469
Delmage, Frederick William, 1830
DeLaPerriere, Green Herschel, 889
de Lapersonne, Felix (Prof.), 285, 803
Della Valle, Francesco, 1467
De Loney, Julian L., 970
De May, William Alonzo, 971
Dempsey, William Thomas, 2084
Dendy, William Robert, 1740
Derby, Fredk. Wm., 1652
Derry, Henry Prentiss, 1651
Derry, Wm. Edgar, 1652
De Shazo, John Newton, 971
DeSombre, Karl Louis, 890
De Vanny, David Alphonsus, 1831
De Vausney, Winfield Scott, 63
Dewey, George Laurin, 64
De Witt Jr., Charles Alsop, 2084
De Wolf, Frank L., 2084
Dexter, Chas. Amory, 1739
Dickie, Jamie William, 1141
Dickson, Thomas Gordon, 1215
Dilley, Frederick Edwards, 1558
Diner, Jacob, 1140
Dinsmore, Virgil Francis, 1651
Dismukes, Henry Mosley, 1215
Dixon, Albert A., 64
Djelalian, Krikor: See Jelal, Krikor
Dobson, George Henry, 1652
Dodd, Clinton Quincy, 971
Dodd, John Andrew, 1923
Dodge, Henry Nehemiah, 1215
Dodge, W. Lee, 63
Doherty, William Brown, 1215
Donaldson, Charles A., 447
Donnelly, William S., 1141
Doodokyan, Yepros Martin, 2155
Doolittle, Wm. Howe, 63
Dorr, Lucius Bradley, 374

Dorsett, Rae Shepard, 1923
Dorsey, Frank Blinn, 1830
Douglas, Hugh Stanley, 1141
Douglass, Edmund Peaslee, 293
Douglass, James Howard, 808
Dowling, John Francis, 1140
Downey, James Henry, 1468
Downing, Samuel, 808
Doyle, Harrison H., 1380
Drach, John H., 2155
Dress, Robert William, 890
Drew, Maria Emma, 1923
Drouillard, Alfred C., 374
Drummond, Peter, 2003
Drury, Emory J., 1652
Dubeau, Joseph D. Napoleon, 521
DuBois, Julian Arthur, 373
Duffy, Leinster, 2004
Duke, Andrew Warwick, 1059
Duke, William Middleton, 374
Dunbar, Harry T., 1652
Duncan, Charles Lucas, 1831
Duncan, Edwin W., 2004
Duncan, William Joseph, 521
Dunkle, Gally Barr, 448
Dunlevy, Rita Ehrmann, 1141
Dunning, Ralph Henry, 1559
Durden, Wm. Willis, 64
Dutcher, Adelaide, 1924
Dyson, Eugene Burdett, 1740

E

Eames, H. Franklin, 1469
Easley, Edwin M., 1924
Easterday, Emma M. Meinhardt, 1651
Eastham, J. George, 1469
Eastland, John Shepherd, 2155
Ebersole, Sol D., 64
Eblen, George J., 890
Eckerdt, Alonzo Burton, 889
Ecroyd, Henry, 808
Edmond, Marion, 224
Edward, George, 808
Edwards, Lewis, 63
Eggleston, Elmer Leslie, 292
Eggleston, William Meade, 2084
Ehrlich, Sigo, 1559
Eichberg, Louis Robert, 1141
Eigenmann, John Christian, 374
Elder, James T., 890
Elliot, Charles Schomberg, 1059
Ellis, Cooley S., 2004
Ellis, Robert C., 1215
Elmendorf, Edward H., 1651
Elrod, John Oscar, 63
Eltinge, Richard Lounsbery, 373
Elwood, John Lewis, 293
Emberson, William Samuel, 373
Emery, Frank W., 293
Endo, Shigeikiyo, 289
Entwisle, Robert Morgan, 1923
Epstein, Meyer Joseph, 889
Erb, Theodore Charles, 1559
Essick, George C., 448
Estes, David Gilbert, 2004
Estes, Jack Martin, 2155
Evans, Thomas Jefferson, 1651
Evans, William Allen, 1924
Eve, Hinton James, 64

F

Fahnestock, Ernest, 63
Fairchild, Paul H., 1059
Fairfield, Charles Alexander Durham, 1559
Fall, William R., 1652
Falvey, Humphrey John, 1924
Farbach, Henry J., 1140
Farlow, Elisha H. F., 1215
Farlow, John Woodford, 2155
Farmer, Lydia Etta Smith, 1380
Farmer, Roy John, 1831
Farrington, Ernest Albert, 63
Farrington, Wm. Prentice, 63
Farris, John Kennerly, Jr., 64
Farwell, Franklin Pierce, 63
Faust, W. Z., 1469
Feemster, Lucien Carl, 447
Fenerty, Vincent John, 149
Ferrier, Edgar Garland, 64
Fetterman, James McElroy, 727
Fiala, Martin Josef, 1652
Fidler, Henry, 2155
Field, Albert, 1651
Fields, David Blackstone, 604
Finley, Emmett May, 1469
Finley, Frank Woolford, 727
Fischer, Haydn Lyle, 1923
Fish, Edman Payson, 448
Fitch, Albert Franklin, 64
Fitzgerald, Peter H., 2155
Fitzgerald, William Pierce, 2004
Flagg, John Dodds, 1379
Flannery, Robert Emmett, 63
Fleischman, Jerome Cornell, 971
Fleming, William James, 727
Flynn, Thomas Jos., 1214
Fogerty, William Clemmons, 1651
Folk, Max Lyon, 726
Foltz, James A., 373
Ford, William C., 1140
Forgues, J. A. Hector, 150
Foster, Lee Orrion, 521
Foster, Richard L., 63
Fouchy, Alphonse Denis, 150
Fourgeaud, Louis, 2084
Fowler, Fred Abram, 1740
Fox, Charles James, 224
Fralic, Harry B., 1651
Franklin, Charles Mayer, 63
Freeman, Ralph, 63
Frey, Arthur Garfield, 63
Friedman, Nathan, 1469
Friend, Charles Frederick, 2155
Frierson, Taylor Jirardeau, 2004
Froehlich, Herman William, 727
Frontis, David Beaty, 2004
Frucht, Morris, 1469
Fryer, Emma Theresa, 1059
Fuller, Quintus Colton, 1923
Fulton, William Grosvenor, 2003
Funk, Bernard John, 1059
Funk, Fred Raymond, 1831
Fuqua, William Beckwith, Jr., 890
Furman, Frank S., 890

G

Gaddle, David W., 1141
Gaillardet, Louis Philippe, 373
Gaines, Lewis McFarland, 148
Galvin, Joseph Emmit, 292
Gamble, Blake E., 1380
Garrabrant, Clarence, 2004
Garvin, Daniel Edson, 1380
Gaskill, Ralph Pern, 374
Gates, Lemont Addison, 1652
Gaul, Adolph Carl Adam, 293
Gault, Fred H., 64
Gedney, Frederick Mears, 64
Gelz, John James, 808
George, Oren Ellsworth, 64
Georgi, Frederick Dold, 1380
Gibbs, Arthur Myers, 63
Gibson, Cicero, 521
Gibson, James L., 1059
Gibson, James Robert, 448
Gibson, Timothy Thomas, 1293
Giguere, Alfred Joseph, 1924
Gildee, James Bennett, 374
Gillespie, Green B., 63
Gillespie, Martin S., 1380
Gillett, Wm. Roswell, 1651
Gillim, Parvin Douglas, 63
Gilmore, Park McConnell, 374
Gilmore, Robert A., 374
Glosemeyer, Louis H., 1380
Goddard, George Michael, 520
Goldenberg, Hermann, 63
Goldenberg, Jacob, 448
Goldenkranz, Solomon, 448
Good, Clarence Allen, 1293
Goodkind, Robert Putnam, 2084
Goodman, Emma Comly Waln, 224
Goodman, James M., 1740
Goodner, Ralph Allison, 2003
Goodrich, Stephen W., 1380
Goodwin, Warren C., 447
Goodwin, William Hall, 373
Gordner, John Franklin, 64
Gordon, Eugene C., 889
Gordon, George, 1059
Gordon, Onslow Allen, 1058
Gothard, Joseph William, 149
Gould, Everett Willoughby, 1651
Grace, John, 374
Grady, James Joseph, 1380
Graham, Isaac Errett, 889
Graham, John C., 890
Grant, Walter Scott, 64
Graves, Dorr, 1740
Graves, Louis Green, 1380
Graves, Wilburn H., 1380
Gravino, Frank Anthony, 374
Gray, Frank Pierce, 971
Gray, Joseph G., 149
Grear, D. Watson, 889
Green, Isadore L., 1059
Greene, Lee Bey, 373
Greenebaum, Henry Arthur, 889
Greenhut, Armin, 1652
Greenwood, Fred S., 1831
Greenwood, Hugh Allison, 223
Greer, Eugene G., 1293
Greer, William Henry, 1651
Gregory, John H., 448
Gregory, Myron Stephen, 148
Greiner, Chas. M., 64
Greiwe, John Ernest, 2155
Griffin, Cicero Frank, 1559
Griffin, Judson M., 1059
Griffith, Robert Blake, 521
Grissim, John De Lafayette, 1379
Groody, Hazley Thomas, 889
Groom, Wm. Simpson, 1652
Gross, Jacob M., 64
Gross, Louis, 1830
Groves, John I., 448
Grubbs, Royal Wm., 150
Grubbs, William Francis, 149
Grundy, Henry, 224
Guiltinan, Joseph Bernard, 149
Gulledge, Eddie Abram, 521
Gunderson, Elmer Alfred, 149
Gunn, John Nisbet, 1924
Gunther, George P. A., 2084
Gyles, Ronald Corbin, 727

H

Haas, Jacob, 2155
Hackler, Garfield McCoy, 373
Haeberle, Frederick S., 1293
Haffner, Ernest L., 448
Hagedorn, Edwin Francis, 1924
Hagen, Carl, 448
Haight, Arthur Lampton, 1293
Hall, Frank Jerome, 1059
Hall, Harry Lawrence, 148
Hall, Thomas Henry, 2003
Hallock, Frank Kirkwood, 292
Halloran, Timothy Joseph, 1380
Halperin, Morris S., 1740
Hammond, Charles, 2004
Hammond, Frederick Porter, 727
Handelman, Harry Joseph, 1215
Hands, William Charles, 1830
Haney, Arthur Herbert, 149
Haney, James M., 149
Hanigan, Roscoe Serrel K., 1379
Hanley, Joseph M., 1380
Hanna, George Carson, 1924
Hannum, William, 1559
Hansberry, James S., 1652
Hansel, George B., 1652
Harbinson, Charles Howard, 521
Harding, Jacob Dwight, 447
Harff, Bernham Gustav, 1214
Hargest, George W., 521
Harloe, Walter Weldon, 148
Harlow, Corydon Webster, 1379
Harp, Henry John, 149
Harper, Frederick Samuel, 1059
Harper, Walter Q., 2004
Harrington, Andrew Jerome, 1559
Harris, Walter Callahan, 1379
Harrison, Laurie Longley, 890
Harrold, Edwin Orren, 1379
Harrower, David, 1468
Hart, Arthur O., 1379
Hart, Charles Oliver, 1924
Hart, David Aaron, 520
Hart, Frederic Clinton, 149
Hart, Frederick C.: See Hart, Frederic Clinton
Hart, George Fred, 890
Hart, Robert Watson, 448
Harthill, Eleanor A., 1059
Hartman, Morris David, 149
Hartzell, Jonas Dabner, 1380
Harwood, Charles Baxter, 890
Haskins, George William, 149
Haspel, M. David, 1058
Hatfield, Daniel Samuel, 1739
Hatfield, William Alexander, 448
Haugh, John A. E., 1469
Haverstock, Arthur David, 1923
Hawkins, Alexander Stephens, 1379
Hawley, Edwin Peppers, 1831
Hayes, Daniel Francis, 447
Hays, Roberts Bartholow, 149
Hays, Sterling O., 64
Haywood, Charles Wesley, 1379
Hearne, Chas. Sheppard, 1739
Heflin, Howell Towles, 808
Heidler, George Kendall, 1924
Heimark, Andrew John, 2004
Hein, Henry, 149
Heitzman, Chas. Wm., 64
Helffrich, Calvin E., 149
Heller, Austin D., 1740
Helprin, Benjamin Edel, 890
Hembree, Oren V., 1831
Henderson, Edward Warren, 1740
Henderson, James Paul, 521
Henley, Lindley Hoag, 1652
Henry, George F., 2004
Henry, James Edward Francis, 1469
Henssler, Otto W., 1380
Herb, Henry Heydt, 521
Herbein, Milton H., 2004
Herman, Harry John, 150
Hess, James Samuel, 2004
Hewitt, Archie Edelen, 1380
Hewitt, Charles, 1652
Hiatt, Edgar Raymond, 2155
Hickman, Charles C., 149
Hickman, Walter Atlee, 448
Hicks, Frank Benjamin, 1740
Hiden, Joseph Hart, 1924
Higgins, Charles Wesley, 1740
Hildreth, William Warren, 2155
Hilgartner, Henry Louis, 726
Hill, Dennis L., 2155
Hill, Hugh Hodge, 890
Hill, Mattie Isabel Foster, 448
Hill, William Lee, 1059
Hilliard, David Alexander, 1380
Hinckley, Don H., 2004
Hirschle, Harry Griffith, 447
Hite, James A. D., 1924
Hitt, Thomas S., 1059
Hobdy, Fount E., 1469
Hodges, Duff M., 2004
Hodgman, Alfred Frederick, 1293
Hodkins, John Allan, 1740
Hoeber, Paul B., 718
Hogan, William Joseph, 447
Hohenschuh, Frank Adam, 293
Holmes, Benjamin Logan, 1380
Holmes, Harriet Elizabeth Balch: See Balch-Holmes, Harriet Elizabeth
Holt Jr., William Preston, 2083
Hood, John Sidney, 2004
Hood, Joseph Napoleon, 1740
Hooge, Ludwig Frederick, 2155
Hoole, Dr., 61
Hooper, John Marion, 447
Hopkins, Bertrand Hiram, 1831
Hopkins, William Wilder, 1215
Hornbaker, Frank Wandling, 808
Hornor, Dayton H., 2084
Horton, Charles W., 293
Hotchkiss, Walter Kendrick, 1379
Houchen, Homer R., 1831
Houston, Edward Brent, 447
Houston, James Lafayette, 448
Howard, Katherine Iris: See Degan, Katherine Iris Howard
Howard, Leroy Taylor, 2003
Howard, Theodore S., 1059
Howell, Charles Hicks, 1059
Howell, John Taylor, 1293
Hoyer, Albert Marion, 971
Hubbard, Samuel Dana, 1214
Hubbell, Adelbert Merton, 1379
Huber, Walter Ambrose, 2084
Huckins, Millicent Lendora: See Hutchins, Millicent Lendora
Hudnutt, Frank Orrin, 1740
Huff, Charles William, 2003
Huff, John B., 890
Huff, Oliver Nixon, 149
Huffman, Otto Von, 808
Huffman, William Grant, 890
Hughes, Maurice Langon, 1739
Hull, Robert Clarence, 1380
Hummel, H. Richard, 1740
Humpert, Geo. A., 149
Humphreys, Samuel Milton, 2155
Hunt, Alonzo Clark, 1214
Hunt, Frederick Austin, 149
Hunt, James Ramsay, 603
Hunt, Levi White, 149
Hunt, Robert Bates, 971
Hunter, Alexander Clyde, 604
Hunter, J. W., 374
Hurley, John Jos., 1740
Hurst, Reuben Levi, 808
Husted, Jane Roney, 64
Hutchins, John L., 1652
Hutchins, Millicent Lendora, 1469
Hutto, Lyttleton Thomas, 1380

I

Idol, Willis, 1380
Imel, Edward Stanton Sr., 521
Irish, Isaac Chase, 2004
Irish, Robert Liston, 727
Irwin, George G., 1215
Irwin, Robert Crawford, 1215
Iuen, William Christian, 1740

J

Jackson, Thomas Jefferson, 1831
Jackson, Walter Jordan, 1924
Jacobaeus, Hans Christian, 1733
Jacobs, John C., 149
Jameson, Charles Howard, 727
Jamieson, Archibald, 1924
Jamieson, Earl, 1379
Janes, Benjamin Franklin Jr., 149
Jaquet, Alfred, 806
Jefferies, Elmor C., 448
Jelal, Krikor, 521
Jenkins, Edward Orestes, 1141
Jenne, James Nathaniel, 1468
Jewett, Carlton Rogers, 447
Jinks, William F., 1469
John, Jacob Stacey, 1559
Johns, John Bunyon, 224
Johns, John Gartrell, 521
Johnson, Charles Hyneman, 1740
Johnson, Claes William, 2155
Johnson, Frederic Charles: See Johnson, Frederick Charles
Johnson, Frederick Charles, 1379
Johnson, George Washington, 224
Johnson, Henry Benton, 448
Johnson, James Manuel, 2155
Johnson, Laura Mann, 149
Johnson, Lee, 150
Johnson, Lola Annetta, 521
Johnson, Philip Tullius, 1559
Johnston, Christopher H., 149
Johnstone, William McKee, 447
Jones, Aubrey Vernon, 149
Jones, Clarence Dupree, 150
Jones, Daniel Fiske, 1058
Jones, Frederick Ellis, 2003
Jones, Grace, 1740
Jones, James W., 448
Jones, John Clark, 727
Jones, Ralph Phillip, 1740
Jones, Robert Paul, 889
Jones, Samuel Everett, 1831
Jones, Solomon, 2003
Jones, William Alvy, 727

Jouett, Emerit E., 1468
Joy, Henry Milnor, 447
Judge, Thomas Francis, 808
Judy, Perry McSwain, 1469
Junkermann, Ulric Zwingle, 2004
Justin, John Clement, 1739

K

Kaffie, Leopold, 2004
Kahn, Max, 1924
Kathan, Dayton L., 521
Katzenberg, Meyer, 1380
Katzenstein, George Paul, 148
Kauffman, Edward Charles, 2004
Kauffman, John William, 1559
Keating, Hugh F., 1651
Keegan, Harold Richard, 1379
Keenan, Francis A., 521
Kefauver, Maurice D., 889
Kellogg, Vernon Lyman (LL.D), 595
Kellogg, Wilmer Clinton, 521
Kelly, Silmeon, 1380
Kelsheimer, Ira D., 447
Kempf, Gustave, 971
Kendall, Frank Elliott, 448
Kendall, Miner Raymond, 1140
Kendrick, Chalmers Nash, 150
Kenfield, Harrie W., 1740
Kenyon, Thomas Alexander, 1558
Kern, Bert Chamberlain, 1924
Kerr, John Jonas, 890
Kerry, Frank Miner, 1380
Ketchum, Marshall Bidwell, 150
Kidd, Richard Turnbull, 1831
Kilham, Eleanor Bridge, 148
Killeen, Mary Augusta, 1469
King, Frederick E., 374
King, George Lincoln Sr., 1058
King, Robert Crump, 447
Kjelland, Jacob S., 1059
Klein, Frank Charles, 149
Kleinfeld, Freas Benjamin, 889
Klimas, Enoch George, 448
Kloepper, Henry Charles L., 1559
Knope, Franklin Aaun, 1215
Knowles, Edwin Winslow, 1739
Knowlton, John Greenleaf Whittier, 149
Knowlton, William Thomas, 1380
Koch, Oswin Fred, 1740
Koontz, David Michael, 448
Kraus, Fred Joseph, 1141
Krause, Fedor, Prof., 1920
Kramer, Adolph Johannes, 1558
Krieger, Curt Herbert, 1739
Kuhn, Leroy Philip, 520
Kurtz, Nellie Ettie, 727

L

LaBaume, Lydia Howell, 1059
Lacewell, John F., 1831
Lachner, Bernard Joseph, 1293
Laidlaw, George Frederick, 890
Lake, Elijah Sherman, 1831
Lalonde, Joseph Xerxe, 149
Lambert, Oscar A., 224
Lambert, Samuel Ernest, 1293
La Motte, Henry, 1923
Landis, Henry Robert Murray, 1379
Lane, Charles Lloyd: See Lane, Lloyd Charles
Lane, Lloyd Charles, 971
Lane, Willard Mercer, 447
Langdon, Henry Harlan, 447
Lange, Hugo, 1740
Lange, Ignatz, 224
Lankford, Alice Catherine Fitzsimmons, 2003
Lankford, William J., 150
Lankovsky, Wladimir Nikolas, 1059
Lapersonne, Felix de: See de Lapersonne, Felix
La Raja, Onofrio, 2004
Largen, Douglas, 149
Larkin, Cyril James, 1923
Latlin, Frank H., 447
Laubach, Charles Adam, 727
Law, Edward Frederick, 1559
La Wall, Charles H., 2076
Lawson, Richard D., 448
Lazarus, William Wheelock, 148
Leach, George Chauncey, 150
Leach, Hubert Felix, 1141
Leatherman, C. E., 150
Lee, John, 2003
Leech, Louis Josiah, 2083
Leffers, Richard, 150
Legg, Albert N., 448
Lemann, Isaac Ivan, 1379
Le Master, Ord Otterbein, 2004
Lemchen, Barnet, 889
Leonard, John Donald, 293
Leone, Charles, 1141
LeRoy, Paul, 1559
Lester, John Crego, 2003
Letts, James P., 1740
Leu, Raymond Hansford, 1651
Leuty, Amos, 971
Levin, Zemach, 1652
Lewis, George Fred, 727
Leyko, Julius Joseph, 726
Lichtenstein, Hans Moritz, 1559
Lillard, Reese Q., 447
Lincoln, Harry M., 2004
Lindner, John William, 1058
Linthicum, John W., 224
Linzy, Jasper B., 224
Lippmann, Gustave, 447
Littleton, Robert Yantis, 448
Livingston, Theodore P., 1830
Lockard, Lorenzo B., 1293
Logan, Fredrick Wallace, 520
Long, Chas., 148
Long, Francis A., 2155
Long, Gross Ransom, 149
Long, Herbert Wilson, 971
Long, Silas Clifford, 1469
Long, William Hamilton, 1558
Longacre, Charles E., 1831
Lothrop, Edwin S., 2004
Lotz, George Carl, 150
Loveland, John Elijah, 1923
Lowe, Edmund Peyton, 890
Lucke, Robert Sidney, 448
Lund, George Jesse, 448
Lyman, John Grant, 1559
Lynd, Robert S., 1924
Lyon, Darwin Oliver, 149
Lyster, Preston Allan Miller, 224
Lyston, John Thomas, 521
Lyter, Jonas Curtis, 1830

M

McAleney, James Lawrence, 1059
McAlvin, James Gregg, 293
McAuliffe, Edwin Louis, 890
McBride, John Sherwood, 2083
McCann, Thomas H., 2155
McCartney, Jesse Thomas, 1559
McCarty, David Wilson, Sr., 1739
McCarty, John F., 149
McCasland, Herbert Sawyer, 2004
McCauley, William Anderson, 1380
McClain, John Wyatt, 890
McClain, William Lee, 293
McClendon, Edgar Franklin, 1058
McClintic, Frank T., 149
McClintick, Frank M.: See McClintic, Frank T.
McClinton, James Blainie Hall, 150
McClurkin, Joseph Cameron, 2003
McClusky, Henry Lincoln, 889
McCollom, Lucian Rufus, 448
McCollum, Sally Josephine, 223
McComb, Earl Vinton, 1141
McComb, J. Baldwin, 223
McConathy, Herbert M., 224
McConnell, Clyde Robert, 447
McConnell, William Ethelbert, 447
McCoy, Calvin L., 448
McCoy, Joseph Newton, 293
McCoy, Samuel Harvey, 224
McCoy, Thomas S., 2004
McCracken, Archibald Rowan, 293
McCrary, Joseph, 1652
McCreery, Clarence Charles, 224
McCreery, Forbes Robert, 889
McCreery, John E., 224
McCullough, Alice A. Stoddard, 890
McDaniels, Minor, 889
McDevitt, James John, 448
MacDonald, Alexander, 1740
McDonald, Alexander F., 890
McDonald, George Albert, 2155
McDonald, James Edward, 1740
Macdonald, John Donald, 149
McDonough, William Conely, 223
McDorman, Vera Mae Irene, 224
McElroy, Riley Park, 448
McElveen, Thomas R., 1469
MacFarland, Erwin Golly, 1830
MacFarland, James Patterson, 1652
McFarling, Charles W., 224
McGee, James William, 1739
McGehee, Marshall M., 1652
McGinnis, Clive Sidney, 521
McIlhenny, James Smith, 448
McIlmoyl, Henry A., 2004
McInnis, Israel L., 890
McIntosh, William B., 2004
McIntyre, George Crarer, 2083
Mack, Burton Wilson, 726
McKamy, Anna Isabelle, 447
McKee, James Franklin, 1831
McKenna, Francis Patrick, 2083
McKenzie, Chas. D., 224
Mackie, Nathan Walser, 447
McLaughlin, Alphonso James, 292
McMahan, John E., 1469
MacMillan, James Alexander, 1140
MacMillan, Marion Blaisdell, 2003
McNaughton, David Decker, 1141
McNaughton, James Alexander, 224
MacNeil, Charles Seward Jadis, 1058
McNeill, Robert John, 1831
MacPherson, John Donald, 448
McRae, John David, 224
MacVane, Ernest Franklin, 1651
Macy, Henry Covington, 150
Madison, Erly R., 2004
Maher, Jeremiah, 971
Mahone, Paul James, 1059
Mailoy, Jay Stephen, 2004
Malone, Jeremiah Dumas, 149
Malone, Stephen Benjamin, 1058
Mammen, Ernest, 1739
Manchester, Harry Alexander, 224
Manges, Monroe, 1293
Manly, Clarence Julius, 1058
Mann, Edward Cox, 1652
Mark, Ernest Guthrie, 889
Markham, Harold Boyce, 2083
Marriett, Woodman Robert, 1141
Marschelder, Frederick Edward, 890
Marsden, James Timothy, 1141
Marshall, Charles Edwin, 2004
Martin, Alonzo, 890
Martin, Charles Thomas, 1924
Martin, John Edward, 1468
Martin, John T., 1469
Martindale, George Hicks, 1924
Martucci, Louis, 1559
Mason, Elijah Lumbia, 1739
Mason, Robert Lowell, 149
Massey, Bradford, 1739
Massie, Henry Franklin, 150
Mathews, James Pleasant, 1468
Mathews, William R., 1380
Mathewson, Wm. Kirk, 1740
Maupin, Edward Griffith, 447
Maw, Herbert, 727
Maxey, Sami. Bell, 1739
Maxwell, Maurice Hopkins, 1923
Mayerson, Solomon Oliver, 2004
Mayfield, George W., 890
Mayo, Robert William Bainbridge, 1830
Mead, Arthur Ross, 224
Meanor, William Craig, 2003
Mecca, James John, 223
Medd, Henry, 224
Medley, John Edward, 890
Meek, Josh Washington, 2004
Meissner, Carl Herbert, 1559
Melvin, Wayman C., 223
Mercer, Robert L., 2004
Merriam, Adeline Eliza Colt, 448
Merrill, Solon W., 1831
Mershon, Edward N. B., 223
Meyer, Leon Leopold, 1559
Meyers, Royal, 1469
Mial, Leonidas Le May, 1739
Michell, Ferdinando (Prof.), 519
Middleton, Wm. John, 223
Micsse, Charles, 448
Milburn, Edward Bryant, 224
Mildenberg, Victor, 223
Miller, Edwin Horace, 1831
Miller, Eugene, 224
Miller, Harold Austin, 1559
Miller, Joseph Leggett, 520
Miller, Richard Hagan, 1739
Miller, Seth Eugene, 890
Mims, Samuel W., 1141
Miner, Irving Camp, 1059
Mingus, Everett, 292
Miniter, Francis Gabriel, 223
Minor, Ernest Blake, 808
Minton, Eugene Joseph, 1469
Mirrielle, Ewing W., 890
Mitchell, John Barnett, 224
Mitchell, Leopold, 1379
Mitchell, Ringgold Scott, 448
Moates, Guy Hart, 1559
Mohler, Duke Goodman, 1740
Mooney, James D., 374
Moore, John Henry, 889
Moore, John J., 890
Moore, Sir John W., 1552
Morrell, Rexford Jennings, 1559
Morris, Edward Joseph, 727
Morris, Frank S., 727
Morrow, William T., 521
Morse, Frederick Otis, 2083
Morse, William Fredk., 1739
Morton, George Joseph, 2155
Moss, Frederic Henry, 1293
Mountford, George Thomas, 448
Muir, John Wesley, 293
Mulford, Henry Kendall, 1462
Mulheron, Hugh J., 1559
Mulligan, Thomas, 1141
Mumaugh, Shelby, 889
Murphey, Walter A., 889
Murphy, John Christoton, 1740
Murphy, Joseph Briggs, 2004
Murphy, Michael Joseph, 2004
Murphy, William Bailey, 447
Murphy, William L., 1293
Murray, Edward Thomas, 521
Muth, Frederick Lucius, 224
Myers, John Ezra, 448
Myers, Louis Winfield, 224
Myers, Sylvan, 223

N

Nash, Marie Antoinette Bennette: See Bennette, Marie Antoinette
Neal, Carl Eugene, 448
Neale, Henry Marion, 808
Neely, John Gilmore, 1469
Neuss, William, 2083
Newby, Martha Burdick, 808
Newcomb, John A., 2083
Newcomer, Paul William, 224
Newell, Jay W., 448
Newlove, Joseph T., 224
Newman, Myron Albert, 1059
Newmark, Philip, 1740
Noble, William Lincoln, 1830
Noecker, Charles Benjamin, 1923
Noehren, Arthur Groman, 1923
Nolte, Harry Frederick, 1739
Nook, Edward Joseph, 448
Northeet, A. L., 224
Norris, Richard C., 808
Norton, Chauncey Williams, 521
Xpster, Alfred H., 1740
Nugent, Edward Genung, 447

O

Oberbeck, August F. G. E., 1831
O'Brien, John Patrick, 1293
O'Connell, James E., 224
O'Connell, Maurice Wm., 1652
O'Connor, Francis William, 1830
Oden, Pope Webb, 1058
O'Hanlon, Philip Francis, 890
O'Kelly, Harry H., 521
Oldham, Samuel P., 808
Oleson, Richard Bartlett, 1830
Oliver, Paul Preston, 1924
Oliver, Walter Holmes, 1831
Olsen, Roger Ralph, 727
O'Neil, Daniel Charles, 223
O'Reilly, Joseph Patrick, 890
Osborn, George Knox, 1831
Osborn, Lauren William, 520
Osburn, Eva St. Clair: See Barber, Eva St. Clair Osburn
Otto, Charles J., 1293
Ouellette, Clifford Joseph, 223
Overholser, Geo. Whitefield, 1215
Overholser, Milton F., 808
Overton, Edward Milton, 1140
Owen, William Wellington, 1293

P

Page, Frank Theodore, 1469
Pancoast, George Ramsdell, 448
Parent, Wm. Harding, 1740
Parish, John Kimball, 223
Parker, Edward Ernest, 1293
Parker, Samuel Flowers, 1831
Parker, William Alley, 971
Parriott, Robt. Phill, 1739
Parris, Daniel, 1740
Pastene, Albert Angelo, 1831
Patchin, Charles Vernon, 520
Paterson, Darnell Stephen, 1380
Pattengill, Lemuel Fitch, 2084
Patterson, Samuel J., 448
Patterson, William O., 1380
Patterson, William Preston, 808
Paul, Judson Waldo, 1831
Payne, Albert Eugene, 808
Payne, Oscar Corwen, 1468
Pearl, Thomas Wesley, 971
Peck, Walter William, 727
Peckham, Anson Churchill, 1740
Peebles, Robert Emory, 1740
Peel, Alfred John, 1469
Peery, John Thomas, 2155
Penn, Benjamin Stilwell, 2084
Penn, Thomas Jefferson, 1469
Penrod, Harry Hartzell, 223
Peppers, Guy Stewart, 224
Perdue, William Robert, 2003
Perkins, George Ben, 1059
Perry, Arthur Rutherford, 1469
Peterkin, Julia Mood, 1140
Peters, Arthur Otway, 1468
Peterson, George Ernest, 292
Peyton, Susan Dora Wilson, 521
Phelan, Daniel, 448
Phillips, David Barringer, 2083
Phillips, James R., 889
Phillips, Robert Hazlett Cummings, 727
Phipps, Walter Andrus, 1380
Pierce, John Woodward, 64
Pierson, Samuel, 292
Pigeon, James Cogswell Du Maresque, 521
Pinch, James W., 224
Piper, Frank, 1380
Plimpton, William Morrill, 1380
Porter, Clifford Charles, 1141
Post, Frank Smith, 1559
Pothulaje, Peter Jurjens, 890
Potter, Frances Wason, 971
Powell, Everette Lewis, 971
Powell, James Buchanan, 1652
Power, Clarence Lamoine, 520
Powers, Julius Henry, 1293
Pozer, Richard Bruce, 1559
Prescott, William Herbert, 447
Preston, Melvin George, 1923
Prevost, Jules Louis, 2003
Price, Harvey Alexander, 890
Prichard, James Buchanan, 521
Pruitt, George A., 1141
Pugh, Joseph Raymond, 1559
Purple, Robert Ruse, 521

Q

Quick, Paul Alexander, 1293
Quin, William Everett, 2083
Quinn, Charles Fuller, 727
Quinn, Harry John, 150

R

Raaf, John J., 224
Rabe, Frederick Louis, 521
Raborn, John David, 1380
Race, William Franklin, 1559
Ragan, George W., 2084
Rains, Jesse Lewis, 2084
Ramer, Edwin Clyde, 971
Randall, Floyd Hamilton, 1923
Rankin, Horace R., 224
Rather, Claude B., 2084
Ravn, Michael, 2084
Rawolle, Frederick Carl, Jr., 890
Rawson, Charles David, 890
Raymenton, William Hewstone, 1924
Redmond, Henry, 1215
Reed, James Joline, 2084
Reed, Jesse McCampbell, 2084
Reed, William Edward, 1379
Reeve, John Charles, 224
Reeves, John E., 2084
Reid, Winfred Lee, 889
Reiley, Isaac H., 374
Reiter, Albert S., 2084
Rejebian, Hagop H., 224
Remde, Frank Ageton, 890
Rendell, Maitland W., 1469
Restenberger, Adolph Martin, 1380
Reynolds, Belle Loomis, 1469
Reynolds, George Edward, 889
Reynolds, Walter, 292
Rice, Clark Hilton, 521
Rice, Clyde Vernon, 1739
Rice, Daniel Stephen, 1058
Rice, Frederick Winslow, 1739
Rice, Gordon Warren, 521
Richardson, Waldo Henry, 521
Richie, Emory Wallace, 1379
Ridgway, Alexander, 293
Rienhoff, William Frederic Andrew George, Sr., 1558
Riley, Charles, 1141
Risser, Frederick William, 604
Roach, Frank Lehew, 1469
Robb, Sarah Lucretia, 521
Robbins, Chas. Albert, 1739
Robbins, Clifton Z., 1923
Roberts, Charles Joseph, 2004
Roberts, George Francis, 890
Roberts, John, 223
Roberts, John Adam, 1059
Robertson, Leon Clarke, 1924
Robertson, Lon Clarke: See Robertson, Leon Clarke
Robertson, William Melville, 1558
Robinson, Edward Clay, 224
Robinson, Everett Edwin, Sr., 223
Robinson, Frank Crawford, 1379
Robinson, Herbert Abraham, 1924
Robinson, Plato W., 890
Robinson, Wm. Colladay, 1652
Rogers, Alvin Stackhouse, 521
Rogers, Arthur Walters, 970
Rogers, Frank Willingham, 1380
Rogers, Thomas C., 150
Rook, Charles Wesley, 292
Rooney, Robert William, 224
Root, Edward King, 1468
Ross, Alexander A., 1379
Ross, Oran Welborn, 1740
Roth, George Henry, 1740
Rothman, Lewis, 521
Rowe, Henry David, 521
Roy, Charles Dunbar, 373
Royce, George Irwin, 1652
Rudd, William Edward, 223
Rue, Henry B., 224
Ruffin, George M., 521
Runyan, Edward Alexander, 604
Rupp, Paul H., 292
Russell, Stephen Alvah, 1141
Rutherford, Cyrus, 447
Rutherford, Lord, 1734
Ryan, Joseph J. Anthony, 2083
Ryan, William Spencer, 1831
Ryans, Lewis, 2084
Ryburn, Samuel McChesney, 2083

S

St. Clair, James Scott, 224
Salley, Francis Eugene, 2083
Salmon, Morley Cuthbert, 150
Salter, Peter Harold, 1739
Salus, Henry Wieder, 1058
Samenfeld, Joseph, 1923
Sample, James Monroe, 224
Sams, William Mead, 2084
Sanders, Daniel M., 1924
Sanders, James Samuel, 1059
Sanger, Samuel E., 64
Sarpalius, John W.: See Sarpolis, John W.
Sarpolis, John W., 1924
Saunders, Duncan U., 2084
Savage, William Edwin, 223
Savard, Arthur Joseph, 520
Sayre, Robert William, 1923
Sayrs, John H., 224
Scanlon, Joseph Michael, 889
Schaef, Hermann Ernst, 1559
Schaeffer, John Henry, 447
Schieffelin, Lila Gertrude, 890
Schleier, Frank J., 1830
Schleyer, Carl R., 1920
Schmidt, Irwin Henry, 1924
Schnacke, Roy Alvin, 521
Schnauss, Friedrich Wilhelm, 224
Scholl, Joel Buford, 2084
Schwindt, Louis William, 889
Scofield, Richard Jessup, 293
Scott, James M., 521
Scott, James Patrick Edward, 1740
Scott, John, 2084
Scott, Wm. Russell, 1739
Sebastian, S. Powell, 1059
Secor, William Lee, 1923
Seidel, Albert N., 448
Seigenthaler, George M., 1559
Seitters, George Frederick, 224
Selby, Frederick Sumner, 1924
Selman, Julius Jay, 223
Settle, James Berkley, 521
Severance, Cyrus Job, 521
Sewell, James Atkin, 890
Sexauer, Chas. F., 1651
Seymour, William Henry, 1141
Shadrach, William Garr, 2004
Shaffer, Carl William, 292
Sharpe, Richard Wickham, 293
Shastid, William Edwards, 224
Shaw, John W., 1469
Shaw, Joseph B., 520
Shaw, Viola E.: See Terwilliger, Viola E. Shaw
Shaw, William James, 971
Sheen, Rodman Ellison, 1469
Sheffield, John Wesley, 1740
Sheldon, Benjamin L., 808
Sheldon-Smith, Victor, 293
Shelton, George W., 1652
Shenberger, William Jacob, 1830
Sherbondy, James A., 292
Sheridan, William Florence, 971
Sherman, Florence Augusta, 971
Sherrill, Colte Long, 1058
Shidler, George Porter, 2084
Shimansky, Clarence Augustus, 2003
Shimazono, Junjiro, 289
Shipman, Frank Edmund, 292
Shipman, Thomas Harris, 1740
Shippey, Roland Hall, 1469
Short, Joseph Malcolm, 292
Shotts, Charles C., 293
Showalter, Ulysses W., 1652
Shube, Herman, 1215
Sigler, Claude Le Baron, 520
Sikes, Edward Warren, 447
Silvera, Edward Samuel, Jr., 1831
Simmons, George Henry, 807
Simpson, James Knox, 603
Simpson, Wyatt Farmer, 890
Sitman, George Womock, 970
Sitton, John W., 2084
Skiff, George Stephen, 1058
Skinner, George Coleman, 970
Slaght, Carrie Estella, 224
Slamovitz, James, 604
Small, Anna May Allen, 1831
Small, Richard Dresser, 1651
Smilie, Nathan, 224
Smith, Arthur Lapthorn, 603
Smith, Carlton A., 727
Smith, Charles Russell, 971
Smith, Delmar H., 1652
Smith, Don La Motte, 1740
Smith, Edgar Bronson, 292
Smith, Frank Ware, 293
Smith, George Edward, 970
Smith, Howard Milton, 292
Smith, James Frank, 1141
Smith, John Harris, 1740
Smith, John Milton, 2004
Smith, Jonathan Mackie, 604
Smith, Munford, 889
Smith, R. E. Lee, 970
Smith, Sheffield, 1831
Smith, S. B., 1468
Smith, Thomas William, 2003
Smith, Victor Sheldon: See Sheldon-Smith, Victor
Smith, Weston Olin, 2084
Smith, William Francis, 604
Smith, Woolam Ira M., 1058
Snow, Robert Lee, 1924
Snowden, Alexander Odell, 1830
Solley, Frank Deming, 293
Sommer, Henry J., 1058
Sossoman, John C., 1469
Southard, Jefferson D., 603
Sowers, John H., 1559
Spalding, Samuel Hopkins, 1651
Sparks, Henry Thomas, 293
Speaker, Everett Elmer, 1830
Spear, Raymond, 2083
Spencer, Hazelton, 1059
Spencer, John Blair, 292
Spencer, John Campbell, 1140
Sperry, Wade, 2084
Spies, Siegfried, 1468
Spohn, William N., 971
Sprenkel, Vaughan LeRoy, 971
Sprigge, Sir Squire, 367
Stafford, Rolla Baxter, 373
Stamm, John, 1831
Stanley, Gordon Edward, 727
Statham, O. W., 727
Stauffer, Gilman Wayne, 2084
Stebbins, Nehemiah Irving, 2083
Steele, William H., 971
Steen, Thomas Enoch, 727
Steenken, Charles Daniel, 1468
Steeves, Ernest Colpitt, 293
Stemen, William E., 2004
Stenton, David Kenneth, 374
Stephenson, Nellis Francis Witter, 520
Stevens, David, 293
Stevens, Henry Lee, 1831
Stevenson, Bayard Taylor, 727
Stevenson, Charles Eldridge, 1923
Stewart, Alexander Peter, 1469
Stewart, Ambrose Cecil, 1380
Stickley, William Downing, 292
Stiebeling, Alfred Henry, 1141
Stiles, S. W., 293
Stirling, William C., 1831
Stoddard, Edwin D., 604
Stoker, William Allen, 1559
Stone, Alvin Bernard, 150
Stone, Augusta, 64
Stone, Chester Tilton, 1558
Stone, Fred G., 1380
Stone, Russell Edward, 223
Stone, William Ridgely, 293
Stooksbury, Jacob Marion, 1059
Stork, Frederick, 2004
Stovall, George Edgar, 1059
Strayer, Robert F., 293
Strobel, Charles George, 1293
Strong, Elmer Dwight, 1831
Stryker, Ralph Spencer, 604
Sturgell, George Morton, 1830
Sturgis, Benjamin Franklin, Jr., 293
Sullivan, Daniel Thomas, 727
Sullivan, James M., 1469
Sullivan, Jeremiah Barrett, 1923
Sullivan, Welby L., 1059
Summerill, John Morris, 604
Summers, John William, 2083
Surnamer, Isaac, 292
Sutter, Otto, 1558
Sutton, Nelson Ford, 1831
Swango, Overton Hobart, 1830
Swayze, Orrin Hays, 971
Swedenburg, Francis Gustavus, 1468
Sweet, Earl Bertrand, 726
Swope, William A., 727
Sylvester, Charles Porter, 1559

T

Talbot, Mathew Lyle, 1293
Talbott, Richard D., 1559
Talboy, William Robert, 1924
Tallmadge, Andrew Thompson, 1380
Tankersley, Felix Marcus Tully, 2083
Taylor, Clarence William, 2084
Taylor, Claude L., 1141
Taylor, Fletcher Burr, 1468
Taylor, Roscoe John, 521
Taylor, William Calvin, Sr., 1469
Teague, Mary Englebert, 1831
Ten Eyck, John Francis, 521
Teninga, Arthur, 1559
Tenney, Thomas J., 1924
Terry, Pleasant E., 374
Terwilliger, Viola Elzada Shaw, 293
Thacker, Richard Emmett, 374
Thames, Thomas E., 1924
Thane, Benjamin, 970
Thomas, Alfred Harrold, 373
Thomas, Charles Meade, 1468
Thomas, Cullen O., 2155
Thomas, Robert Arthur, 293
Thomason, William, 727
Thompson, Frank H., 1379
Thompson, George, 2083
Thompson, George Southwick, 1379
Thompson, Lloyd Orrin, 1141
Thompson, Thomas C., 1831
Thomson, J. G. (Prof.), 720, 966
Thomson, John, 727
Thomson-Walker, Sir John W., 1552, 1647
Thornley, Josiah Payne, 1293
Thuner, Alois Anthony, 727
Thurlimann, Otmar, 1924
Tillotson, Alvin G., 293
Timbres, Harry Garland, 727
Tipton, James T., 971
Toner, Joseph Michael, 520
Tousey, Sinclair, 2003
Townsend, Charles Rodman, 727
Townsend, Harman Richard, 374
Trout, David William, 727
Troute, Foye R., 727
Trovillion, Milo H., 1380
Trowbridge, Dwight Howe, 148
Trudeau, J. M. Raphael, 604
Tubb, Erastus Hardy, 889
Tucker, Charles W., 1923
Turner, James Henry, 2155
Tyson, Jason, 520

U

Underwood, John Elijah, 890

V

Vanden Berg, Joseph, 971
Vanderbeek, Andrew Bogert, Jr., 1058
Van Deursen, George Livesey, 292
Van Kirk, Herbert Spencer, 970
Vaughen, Ray, 1141
Vawter, Jamison, 1924
Vermillion, Carl McLain, 1830
Vernon, George Heywood, 1141
Vigen, Jorgen G., 604
Vincent, Henry Ansel, 971
Vogan, James Enoch, 2155
Voiet, Simon, 1739
von Krehl, Ludolf (Prof.), 370

W

Wade, Charles Albert, 1739
Wade, Lyman Trevitt, 373
Wagner, George Alexander, 889
Walcott, Harry Gilmer, 970
Walker, Albert B., 293
Walker, Herbert Le Roy, 1559
Walker, Robert Coulter, 1559
Walker, Robert R., 293
Wall, Albert Samuel, 2004
Wall, Charles Delamere, 1652
Wallace, Rufus Moos, 727
Waln, Emma C.: See Goodman, Emma Comly Waln
Walters, Alvin Ernest, 1059
Ward, Daniel Webster, 1379
Ward, Harriett Beecher, 2084
Ward, John Wesley, 293
Warmuth, Mitchell P., 889
Warren, Arthur Fay, 1739
Watkins, Charles B., 150
Watkins, Edward Merriett, 150
Watkins, James Edwin, 1380
Watkins, William W., 604
Watson, James Edwin, 604
Watts, Anti Costa, 2004
Watts, George Eliot, 604
Wayt, William Baldwin, 1380
Weaver, Jacob J., Jr., 293
Weaver, Thomas Albert, 2084
Webb, Harvey Edmund, 808
Webb, Lanphear W., 1141
Webster, George E., 2003
Webster, George Wickliffe, 1141
Webster, Oran Lamar, 1469
Wedemeyer, Edward Lee, 1059
Weidman, John A., 603
Weimar, Henry William, 1831
Weiser, Walter Rupert, 292
Welch, Joseph Harry, 1652
Welch, Oliver Frank, 604
Welch, Walter C., 293
Wellman, Warren D., 2083
Wendelboe, Lars Thomas, 293
West, Alva Archillous, 1141
West, Helen, 1831
Weston, William Henry, 1559
Whaland, Charles W., 604
Whalin, Oscar D., 2004
Wheeler, Arthur Charles, 2003
Wheeler, Joseph Suley, 1559
Wherry, Calvin Norwood, 1215
Whetsell, Leon Edward, 1830
Whitaker, Hervey Williams, 1141
White, Gershom Franklin, 292
White, Herman Robert, 604
Whiteaker, William J., 1380
Whitely, James Benson, 293
Whittenberg, William Clayton, 1215
Wietrzynski, Stanislaus F.: See Wietrzynski, Stanley F.
Wietrzynski, Stanley F., 1141
Wigley, James Arthur, 292
Wilbur, Fred M., 1059
Wilder, Rosella Cynthia, 1831
Wilhoit, Miles Jasper, 150
Wilkinson, John E., 1141
Wilkinson, Vernon Stevens, 1831
Williams, John Walter, 1831
Williams, William E., 1469
Willian, Charles L., 2004
Willman, Reinhold, 890
Wills, Chalmers: See Wills, Wm. Chalmers
Wills, William Chalmers, 1924
Wilson, Cleveland Roy, 374
Wilson, S. Dora: See Peyton, Susan Dora Wilson
Wilson, Samuel, 2155
Wilson, Warren, 2003
Wilson, William Wellford, 604
Winfield, Alonzo Leonidas, 1059
Winslow, Amos Huram, 971
Winslow, John Randolph, 223
Winslow, Nathan, 1830
Wirt, Hiram H., 293
Wisely, J. W., 2155
Wiseman, Charles Sumner, 293
Woitishek, Frank Joseph, 293
Wolf, Osmar K., 604

V 1
193

Wolfe, Samuel, 373
Wolter, Herman Alvin, 1380
Womack, Charles Marion, 1059
Wood, D. J., 61
Wood, Samuel Clifford, 64
Woodbury, Ernest Irving, 293
Woodcock, William Cleveland, 1141
Woodland, George Hart, 1469
Woodmansee, John Austin, 1379
Woodruff, Harry Walter, 293
Woodward, Samuel Andrew, 603
Workman, John Alfred, 727
Worthen, Charles Wesley, 1830
Wright, Austin Charles, 1059
Wright, Flora Allison, 2004
Wright, Junius B., 1141
Wright, Nathaniel Van Wert, 971
Wright, Willard Lyman, 1924

Y

Yerington, Henry Herbert, 1830
Youmans, George E., 293
Young, Claude V., 292
Young, Frank P., 1141
Young, Isaac W., 890
Young, John Roscoe, 150

Z

Zeh, Joseph William, 604
Zell, Augustine Mathias, 373
Zieg, George Arthur, 604
Zieg, John Phillip, 1141
Ziegler, Charles Benjamin, 604
Zimmerman, Charles St.V., 1831
Zimmermann, John S., 2083
Zook, Erle Will, 374

E

E & J Resuscitator, [Martinez] *489; [Henderson] 1561—C; [Hurlbut] 2157—C
EAGLES, Fraternal Order of: See Index to Organization Section
EAR: See also Deafness; Eustachitis; Hearing; Otorhinolaryngology
discharging, perforate Shrapnell's membrane with vertigo on syringing, 609
diseases, use of urea in, [Lewy] 1232—ab
Inflammation of Middle Ear: See Otitis Media
keratosis of external auditory canal, 2000
middle, effect of flight on, in pilots, [Armstrong & Heim] *417
phenomenon as precursory sign of measles, [Bespaloff] 748—ab
Surgery: See Mastoidectomy
EASTMAN Clinic: See Dental
ECHINOCOCCOSIS: See Heart; Liver
ECLAMPSIA, predisposing factors in, 588—E
sequels, [Teel] 821—ab
treatment, [Rucker] *1087
treatment, calcium, 1650
treatment, magnesium sulfate, [Stroganov] 916—ab
ECONOMICS, MEDICAL: See also Insurance; Medicine, state; Index to Organization Section
Care of Indigent: See Medical Service
New Zealand government to pay doctors at rate of £1 per head annually, 1291
survey, report, California, 1993
ECTHYMA or factitious dermatitis, 2010
ECTROPION: See Eyelids
ECZEMA, atopic, 2010
blood serum lipids in, 510—E
in infants, [Foerster] 990—ab
in infants, acidified milk with high fat content in, [Traversaro] 542—ab
treatment, artificial sun lamps, 1063
ECZEMATONE; Eczematone Ointment, 2156—BI
EDELMANN-GALTON whistle, use, 154
EDEMA: See also Ascites; Ankle
angioneurotic, epinephrine inhalations in, [Klinefelter] *1798
angioneurotic (Quincke's), bee venom desensitization for, [Wolpe] 1409—ab
general, of indeterminate etiology, [Binger & Keith] *1
Lymphedema: See Elephantiasis
nephrotic, acacia therapy, [Landis] *2030
non-nephritic, in scarlet fever, [Zischinsky] 1590—ab
protein deficiency, [Boyer] 1854—ab
treatment by multiple punctures, [Sein] 2170—ab
EDOUARD'S B. Acidophilus Compound, 2085—BI
EDUCATION: See Children, school; Physical Education; Schools; Students; University
Physical: See Physical Education
EDUCATION, MEDICAL: See also Graduates; Internships; Schools, Medical; Students, Medical; University
A. M. A. Council on: See American Medical Association
Annual Congress on, 1913
between two extremes, 1006—ab
course, length of, *664
curriculum, *664
graduate courses, (U. of Minnesota) 962; (for panel physicians, England) 966; (Ohio State Medical Association lectures) 1050; (5 year program, California) 1913
graduate instruction (reorganized at Tulane) 364; (of radiologists) [Kirklin] *633; (in ophthalmology) [Parker] *1262; (in syphilis control work) 2071—E
graduate, (New South Wales) 724; (New Zealand) 1056
graduate study, International Congress on, Berlin, 1554
in U. S. and Canada, annual presentation of data on, *659
novelties and chance findings, 336—ab
number, August 28, '37, *659
of general practitioner, 597
premedical education, *659; *664
teaching allergy, Association for Study of Allergy committee report, 964
teaching (clinical), clinic-university-hospitals agreement, Rome, 1378
teaching (clinical), no cooperation between 12 hospital staffs, London, 1825
teaching industrial medicine, France, 722
teaching natives in the Colonies, 1375
teaching radiology to undergraduates, [Pendergrass] *634; [Moore] *637
teaching student what involves adequate medical care, [Bailey & Weiskotten] *2136; 2144—E
teaching urology, [Barnes] *640
EDUCATION, MEDICAL—Continued
three fundamental subjects: dissecting room, deadhouse and clinic, 203—ab
EDWENIL, (Council report) 272; (animal experiments with) [Stainsby & Shultz] *273; 280—E
EFFUSION: See Pleura
EGG shells, calcium in, 71
EHRLICH'S (Dr.) nostrums, 1925—BI
ELBOW trauma, xanthoma tuberosum with, in tile setter, [Sugg & Stetson] *414
ELECTRIC Arc Welding: See Welding
Hearing Aids: See Hearing
Refrigerator: See Refrigerator
ELECTRICITY, hemiplegia after shock, 895
ELECTROCARDIOGRAM: See Heart
ELECTRO-ENCEPHALOGRAM: See Brain
ELECTROGALVANISM from dental fillings, 526
ELECTROLYSIS for removal of hair on nipples, 2161
ELECTROLYTES, effect on chronaxy of vestibular nerve, [Hurynowiczówna] 94—ab
ELECTROSURGERY, High Tension, 207
ELECTROTHERAPY, books on, 895
ELEPHANTIASIS, lymphedema of leg, 729
EMBALMING: See Medicolegal Abstracts at end of letter M
EMBOLISM: See also Thrombosis
air (arterial) after pneumothorax, [Hall] *125; [Poix] 395—ab
air, cause of pleural shock, [Capps] *852
air, experimental gas, [Richardson] 310—ab
air, to spinal cord after pneumothorax, [Wikler & others] *430
brain vascular reactions in, [Villaret] 2107—ab
Gas: See Embolism, Air
of arteries of extremities, 1735
postoperative, [Bancroft] 2017—ab
pulmonary, 1211; [Barnes] *1347
pulmonary, incidence, [Pilcher] 1317—ab
pulmonary postoperative, calcium chloride prophylaxis, [Muff] 831—ab
treatment, 1736
EMBRYO: See also Fetus
spinal reflex mechanism in, [Windle] 1938—ab
EMBRYOLOGY, animal, processes, Spemann on, 1827
EMERALD OIL, Moone's, 728—BI
EMERGENCIES, stores of serum for, Germany, 602
EMERGENCY RELIEF: See also Index to Organization Section
merged with state agency, New York, 513
EMERSON Infant Respirator, 131
EMETINE, intolerance to, [Lorenzo] 2108—ab
EMOTION, bodily needs and, 1337—ab
factor in asthma, [Strauss] 1317—ab
factor in chronic arthritis, [Cobb] 1153—ab
factor in health and disease, [Swanton] 394—ab
healers and emotional strain, 1529—ab
mechanism, [Papez] 1668—ab
EMPHYSEMA, obstructive, and atelectasis in influenza, [Snow & Cassasa] *1886
EMPIRE Rheumatism Council, 1998
EMPLOYEES: See Hospitals: Industrial
EMPYEMA, periapical, [Kautz] 78—ab
skeletal deformities in children from, [Bisgard] 1077—ab
treatment, sulfanilamide, [Gay] 2100—ab
ENCEPHALITIS: See also Meningo-Encephalitis: Polioencephalomyelitis
acute, unusual symptoms, [Loeper] 89—ab
Chronic: See Encephalitis, Epidemic
clinic (first German), 1055
lead, in children, [Blackman] 824—ab
symptoms from influenza virus, [Neal] 1490—ab
track, [Hoff] 244—ab
ENCEPHALITIS, EPIDEMIC, in patients having had poliomyelitis, [Klimke] 1494—ab
outbreak, Missouri, 1461
sequels, atropa belladonna in parkinsonism, 519
sequels, atropine dosage in, [Hall] 172—ab
sequels, benzedrine sulfate-atropine treatment, [Finkelman & Shapiro] *344
sequels, parkinsonian type, 525
sequels, phenobarbital contraindicated in parkinsonism; increases rigidity, [Ziskind & Ziskind] *20
ENCEPHALITOZOON, granulomatous encephalomyelitis due to, [Wolf] 1399—ab
ENCEPHALOGRAM: See Brain
ENCEPHALOMYELITIS: See also Polioencephalomyelitis
granulomatous, due to encephalitozoon, [Wolf] 1399—ab
ENDARTERITIS Obliterans: See Arteriosclerosis obliterans
ENDO, S., death; "Endo's Medium," 289
ENDOCARDITIS: See also Medicolegal Abstracts at end of letter M
bacterial, rheumatic fever rôle in, [Gross] 1847—ab
pneumococcic, 1743
staphylococcic, superimposed on syphilitic aortic, [McMillan & Wilbur] *1194
treatment of stubborn form, 1655
ENDOCRINE GLANDS: See also under names of specific glands
function of liver, 1647
neuro-endocrine apparatus, 2153
relation to sterility and abortion, [Litzenberg] *1871
research, Markle Foundation grant to National Research Council for, 216
treatment of amenorrhea, [Frank & others] *1863; (correction) 1997
treatment of cystic mastitis, [Lewis & Geschikter] *1894
treatment of menopausal phenomena, [Pratt & Thomas] *1875
treatment of menorrhagia and metrorrhagia, [Burch & others] *1869
treatment of vaginitis, [Lewis & Adler] *1873
treatment, ordinary or enteric coated products, 974
tuberculous infection and, [Schedtler] 914—ab
ENDOMETRIOSIS: See Endometrium, aberrant
ENDOMETRIUM, aberrant, of colon and rectum with intestinal obstruction, [Cattell] 745—ab
cyst of uterosacral ligament (rare), [Israel] *574
cystic changes, [Randall] 2103—ab
trauma and infection from pessary, [Choisser & Notes] *1628
ENDOTHELIOMA: See Myxo-endothelioma
ENERGY Metabolism: See Metabolism, basal
ENGINE: See Diesel Engine
ENGLISH: See British; Royal
ENTERECTOMY: See Intestines, surgery
ENTERIC Coated Products: See Endocrine Glands
ENTORAL, (Council report), 208; 1130—E; (detail men promote), [Richter] 1926—C
ENURESIS: See Urination, incontinence
ENVIRONMENT: See also Climate
effect on inherited characters; case of twins, Germany, 287
factors in rheumatoid arthritis, [Cobb] 1153—ab
EOSINOPHILIA, 453
after intravenous oil injections, [Engelbreth-Holm] 472—ab
in periarteritis nodosa 453; (reply), [Sandler] 977
in unusual illness, [Thomson] 910—ab
EOSINOPHILS, length of life of, [Osgood] *933
EPHEDRINE, chemical formula, *2065
hydrochloride, Ampoules Solution, 1365
Sulfate: See Asthma, treatment
Treatment: See Urination, incontinence
EPIDEMICS: See Dysentery, bacillary; Encephalitis, Epidemic; Gastro-Enteritis; Influenza; Paratyphoid; Typhoid; Yellow Fever; etc.
EPIDERMOMYCOSIS, torch oil dermatitis relation to, [Kammer & Callahan] *1511
EPIDIDYMIS, oxidation ferments from, for migraine in women, [Zajicek] 94—ab
EPIDIDYMITIS, treatment, 380
tuberculous, and coitus, 977
EPIGASTRIUM, pain, attacks, 1837
EPIGLOTTIS, herpes zoster, [Franchini] 91—ab
EPILATION: See Hair removal
EPILEPSY, diagnosis, 227
diagnosis (possible), 1219
genito-urinary tract syndrome in, 1744
German neurologists discuss, 2151
musicogenic, [Critchley] 171—ab
onset, mode, [Fetterman] 1668—ab
psychotic, blood bromide in, [Minski] 2170—ab
Seizures (Therapeutic): See Dementia Praecox
surgical aspects, [Gilbert] 1158—ab
treatment, antirabic virus, 381
treatment, ketogenic diet, in children, [Keith] 2169—ab
treatment, phenobarbital, anemia during, [Maillard] 2023—ab
EPINEPHRINE, chemical formula, *2065
drugs antagonistic to, 229
effect on blood pressure, [Grill] 94—ab; (cause hypertension?), [Dicker] 994—ab
in Blood: See Blood
Inhalations: See Edema, angioneurotic

109
37

EPINEPHRINE—Continued
injected, disappearance in animal body, [Weinstein] 827—ab
injection, glycemia and ketonemia after, [Andreis] 749—ab
injection in vaginal plastic operations, [Furber] 2106—ab
injection (intratracheal) after tracheotomy, [Green & Miller] *1903
probe test (Muck's), [Van Dishoeck] 2110—ab
serologic antibodies against hormones, [Bauer] *1442
Treatment: See Edema, angioneurotic; Labor complications; Malaria, chronic
EPININE, chemical formula, *2065
EPIPHYSIS, femoral, osteochondritis of, 1296
EPISIOTOMY: See Labor
EPITHELIOMA, pigmented basal-cell, [Gaté] 469—ab
EPSOLIN, 2156—BI
ERGOT, fungous infection of grain, ergotism and vasomotor disorders, [Klein] 390—ab
use and abuse of, [Davis] *1631
ERGOTAMINE TARTRATE: See also Migraine treatment
ergotism, papaverine hydrochloride for, [Perlow & Bloch] *27
ERGOTISM: See Ergot; Ergotamine tartrate
ERTRON, 132
ERUPTION: See Exanthem
ERYSIPELAS, treatment, sulfanilamide, [Breen] 626—ab; [Snodgrass] 1159—ab; [Marzollo] 1765—ab
ERYSIPELOID or fish poisoning, 152
ERYTHEMA, nodosum (San Joaquin Valley or "desert" fever), caused by Coccidioides, [Dickson] 66—C; 1757—ab
of ninth day and arsphenamine dermatitis, [Sprafke] 1239—ab
toxic, from quinine or scarlet fever eruption? 1385
toxic, or bullous impetigo? 1383
unilateral, of face in infant, 1747
ERYTHREMIA: See Polycythemia
ERYTHROCYTES, chemical content (lipid and cholesterol) in pernicious anemia, 434—E
of one human organism would form chain 200,000 kilometers in length, 446
Sedimentation: See Blood
size, [Freerksen] 1677—ab
volume index; use of Daland, Van Allen and Wintrobe hematocrits, 450
ESMARCH'S Method: See Uterus surgery
ESOPHAGUS, dilatation hiatogenic, [Strauss] 396—ab
diverticulum (pulsion), surgical management, [Lahey] *1414
diverticulum (traction), [Wallace] 1487—ab
roentgen study, mucosal pattern technic and kymographic records, [Skinner] *1963
spasm (simple nonsphincteric), [McGibbon] 626—ab
varices, [Oppenheimer] 1667—ab
ESTROGENS, 1376
effect on anterior pituitary and diabetes mellitus, 1657
effect on prostate, [Champy] 912—ab
in urine, daily excretion, [Gallagher] 1670—ab; [Kenyon] 1670—ab; (in children) [Dorfman] 2169—ab
in urine, suggested test for cortical adrenal cancer, [Frank] *1121
International Medical Days discuss, 1210
ketonic and nonketonic, [Westerfeld] 1312—ab
progynon and progynon-B, treatment of involutional melancholia, [Suckle] *203
theelin, effective clinical dosages, [Werner & others] *1027
theelin in hemophilia in Negroes, [Pachman] 538—ab
theelin treatment of involutional melancholia, [Schube] 1312—ab; [Ault & others] *1786
treatment of amenorrhea, [Frank & others] *1863; (correction) 1997
treatment of chronic cystic mastitis, [Lewis & Geschickter] *1894
treatment of infantile uterus, 1838
treatment of prostate hypertrophy, [Wugmeister] 628—ab
treatment (oral) to premature babies, [Potter] 747—ab
ETHER Anesthesia: See Anesthesia
ETHICS, MEDICAL: See also Index to Organization Section
medical patents, [Fishbein] *1539; [Scarlet Fever Committee] 1833—C
professional secrecy, Hippocratic oath and social insurance, France, 517
ETHMOID SINUSES, injuries, [Cairns] 1856—ab
ETHYL acetate; ethyl silicate, industrial hazard, [McConnell] *765; *767
*di*ETHYLENE DIOXIDE (dioxane) (industrial hazard), [McConnell] *765; (chemical formula) 1725
ETHYLENE GLYCOL, chemical formula, 1725
feeding experiments with rats, [Holck] *1517
mono-ethyl ether of, industrial hazard, [McConnell] *765
*di*ETHYLENE GLYCOL, chemical formula, 1725
Elixir of Sulfanilamide-Massengill, (deaths from), 1367—E; 1456—E; *1538; *1539; 1544—E; *1725; 1727—E; [Secretary of Agriculture] *1985; 1992—E; (renal lesions from) [Kesten & others] *1509; (Chemical Laboratory series) *1531; *1724; (chemical examination) [Schoeffel & others] *1532; (toxicity studies on rats) [Geiling & others] *1532; (pathologic effects) [Cannon] *1536; [Ruprecht & Nelson] *1537; [Hagebusch] *1537; [Beall] 1561—C; 1911—E; [Richter] 1926—C
feeding experiments, [Holck] *1517; [Geiling & others] *1532
ETHYLENEDIAMINE, action of theophylline with, on intrathecal and venous pressures, [Green & others] *1712
ETSAM, 1060—BI
EUCALINE (Regular), 2085—BI
EUGENICS: See Medicolegal Abstracts at end of letter M
EUNUCHOIDS, excretion of androgenic and estrogenic substances, [Kenyon] 1670—ab
EUSTACHITIS, 2082
EVANSTON Municipal Pertussis prophylactic vaccination clinic, [Sauer] *487
EVEREADY Carbon Arc Lamp, 1042
EVIDENCE: See also Medicolegal Abstracts at end of letter M
expert witness, psychiatric element in criminal jurisprudence, 1057
EVIPAL: See Anesthesia
EVOLUTION, Sir Edward Poulton surveyed controversy on, 1135
EWING'S Tumor: See Tumor
EXANTHEM, Drug: See Arsphenamine; Quinine Sulfanilamide
in gonorrhea, [Levin] 1939—ab
EXERCISE: See also Athletics; Physical Education; Running; Swimming
after nephrectomy, 2090
effect on metabolism, [Haldi] 1579—ab
fever in childhood due to, [Hawke] 825—ab
in pulmonary tuberculosis, [Voute] 1675—ab
Knee-Chest: See Uterus retrodisplacement
Passive Vascular: See Blood Vessels, disease
Tolerance Test: See Heart function
EXHAUSTION: See Fatigue
EXHIBIT: See Health; Index to Organization Section
EXOPHTHALMOS, after thyroid resection, 1747
complicating irradiation of malignant nasal sinus disease, [Schall] *1506
thyroid surgery effect on, [Dinsmore] *179
EXPECTORANTS, [Brown] *268
EXPLOSION: See also Anesthesia
toxic gases from dynamite and from TNT, 1217
EXPLOSIVES, dangerous amateur fireworks; also from gasoline, 965
EXPOSITION: See Cleveland; Golden Gate; New York; Paris
EXSERCO Antiseptic Deodorant Disinfectant, 2005—BI
EXTREMITIES: See Amputation; Arms; Legs
EXUDATES, antibactericidal effect, [Hughes] 1674—ab
EYELIDS, cicatricial ectropion, correction, 2160
ptosis, surgical correction, [Spaeth] *1889; [Jameson] 1937—ab
seborrheic dermatitis, 810
EYES: See also Blindness; Cornea; Exophthalmos; Glasses; Nerve, optic; Ophthalmology; Orbit; Retina; Vision; Medicolegal Abstracts at end of letter M; Index to Organization Section
blue, inheritance, 455
burns (caustic), [Hubbard] 1231—ab
diseases, possible syphilitic involvement, [Berens & Goldberg] *779
disorders, effect of weather, 1738
effect (late) of mustard gas on; war injury, 516
foreign bodies (metallic) lodged in posterior segment, 969
fundus, angioid streaks in, [Benedict] *473
fundus lesions in polycythemia, [Cohen] 79—ab
injuries, compensation in, 894
paralysis of ocular muscles, autohemotherapy, [Campos] 2108—ab
quinidine not cause of rotary oscillation of eyeball, 610
refraction; astigmatism, 2088
refraction, correct cylinder for distance vision, 1659
sensitivity to colored light, especially to colored street lights, 442
sequels of meningitis, [Eagleton] 823—ab
Silver Nitrate Instillation: See Ophthalmia neonatorum
solutions, buffering, 377
spots before (Muscae volitantes) 523
vitamin A deficiency sign in, dark adaptation test, [Ezickson & Feldman] *1706

F

FACE: See also Lips; Mouth; Nose
care, after shaving, [Hollander & Casselman] *98
erythema (unilateral) in infant, 1747
FACE—Continued
furuncle, treatment, 278—E; (reply: iodine and dry dressings for) [Cummins] 1061—C
growth (normal) in children, [Young] 1404—ab
infections of dangerous areas, [Maes] 617—ab
injuries, automobile, [Straith] *940
Paralysis: See Paralysis
paresthesia, 155
surgical removal of powder tattoo, [Lindsay] *1530
surgical treatment of spasm, [Coleman] 165—ab
FACTORY: See Industrial
FACULTY of Medicine, Buenos Aires, 148; 1139; 2002; (illustration) 2082
of Medicine, Paris, (chair of medicosocial aid) 1289; 1648; (Tiffeneau dean) 2080
FAINTNESS: See Syncope
FALL, effect on pelvic organs, 71
FALLOPIAN TUBES, abscess, effect on upper urinary tract, pyelographic study, [Kretschmer & Kanter] *1097
inflammation (acute), cutaneous hyperesthesia in, [Labate] 1316—ab
obstructed, in sterility, diathermy and insufflation for, [Mintz] 821—ab
FAMILIES, large, allowances for, France, 1648
FARMER-swindler in western states, 1645
FASCIA, hernia, sodium morrhuate injection for, [Schmier] *28
lata, relation to back conditions; fasciotomy, [Ober] *544
FASCIOTOMY: See Fascia
FASTING, ketosis during, [MacKay] 1669—ab
FAT: See also Acid, fatty; Acid, linoleic; Oil
absorption from ileum, [Doubilet] 165—ab
atrophy, Weber-Christian disease, [Bailey] *1419
diet (higher) vs. increase in diabetes, [Süsskind] 631—ab
Glands: See Sebaceous Glands
in Blood: See Blood
metabolism disorders after splenectomy, [Zancan] 318—ab
Reducing: See Obesity
FATHER Mollinger's Famous Herb Tea; Prescription for Female Complaints, 1741—BI
FATIGUE, benzedrine sulfate effect in chronic exhaustion, [Wilbur & others] *549; (Council report) *2068
metabolic rate (low) with, 811
nature, 879—E
FAVISM, hemolytic anemia, [Hutton] *1618
FECES, Clostridium welchii in, especially in pernicious anemia, [Borthwick] 85—ab
copratoporphyrin, [Beckermann] 1767—ab
diphtheria bacillus in patients, [Ciantini] 1083—ab
fat in, pituitary cachexia with idiopathic steatorrhea, [de Langen] 398—ab
fat in, symptomatic steatorrhea in cancer, etc., [Lundsteen] 834—ab
hypercholia in, in infantile bronchopneumonia, [Galeotti-Fiori] 318—ab
vitamin A in, [Wendt] 1321—ab
FEDERAL Communications Act: See Medicolegal Abstracts at end of letter M
Emergency Relief: See Emergency
Home Loan Bank: See Index to Organization Section
Trade Commission: See also Index to Organization Section
Trade Commission, food and drug legislation, 1546—E
FEDERATION of American Sanatoria, name changed, 514
FEEBLEMINDED: See Mental Defectives
FEES: See also Index to Organization Section
capitation, England, 218
higher, medical syndicate recommends, France, 369
Tuition: See Schools, Medical
FEET: See Foot
FELDMAN Method: See Vitamin A deficiency
FELIX'S Antityphoid Serum: See Typhoid
FELLOWS' (Dr.) Headache Powders, 1653—BI
FELLOWSHIPS: See also Scholarships
Buenos Aires, 2002
Finney-Howard Research Foundation, 1645
Frank, bequest for, at Columbia, 594
Jacobi (Mary Putnam) 594; 1823
Medical Research Council, 441
National Research Council, available, 1553
Novy, 2074
FEMASEPT, 1653—BI
FEMI-GENE Antiseptic Tablets, 1925—BI
FEMUR, bolting or boring of neck in coxa vara, [Dreyfus] 241—ab
fractures of shaft, [Eliason] *848
osteochondritis of epiphysis, 1296
tumor, Ewing's, [Smith] 1073—ab
FEROND'S Hair Grower and Tonic, 1653—BI
FERRO China De Angelis, 1653—BI
China Doria, 1741—BI
FERROUS Sulfate Treatment: See Anemia nutritional
FERTILITY: See also Sterility
number of births to a marriage, [Cadwallader] 150—C
of parents of feebleminded, Switzerland, 805
period of potency in man, 891

FETUS: See also Embryo; Infants, New-Born
growth, short waves effect on, 1139
induced to drink by sweetening amniotic fluid, [De Snoo] 397—ab
membranes, insulating patches and absorbable suture made from, [Johnson] 538—ab
mortality, antepartum care, [Tamis & Clahr] *195
mortality in breech delivery, [Urnes & Timerman] *1616
Position: See Labor
Presentation: See Labor presentation
thyroid hyperplasia in twin, [Warren & Shpiner] *575
FEVER: See also Dengue; Rheumatic Fever; Sandfly Fever; Scarlet Fever; Typhoid; Yellow Fever; etc.
diagnosis, in boy, 2158
in childhood from exercise, [Hawke] 825—ab
Malta: See Undulant Fever
of unknown origin or possible malingering, 453
producing agent in infusion fluids, [Co Tui & others] *250
protracted, with septal infarct, [Laubry] 175—ab
Puerperal: See Puerperal Infection
"Q," in meat workers, Brisbane, [Derrick] 1596—ab
Rat-Bite Fever: See Rat-Bite Fever
reaction to sulfanilamide, [Hageman & Blake] *642
Rickettsia: See Rickettsia
Rocky Mountain Spotted: See Spotted Fever
San Joaquin: See Erythema nodosum
seven-day, or leptospirosis, Queensland, [Clayton] 627—ab
Therapeutic: See also Arthritis; Chorea; Colitis, ulcerative; Gonorrhea; Malaria, therapeutic
therapeutic, albumin in urine after, [Welty] 741—ab
therapeutic, apparatus, Council requirements, 1041; 1044—E
therapeutic, Beck-Lee De Luxe Duo-Therm, 432
therapeutic, brain lesions after, [Hartman] *2116
therapeutic, in children, [Spekter] 2100—ab
therapeutic, induced by hot moist air, shock in, [Kopp] 1830—ab
therapeutic, instrument for reading rectal temperature, [Bierman] *867
therapeutic, research at Pittsburgh, 1296
Valley: See Erythema nodosum
FIBROMA: See also Myxofibroma
ovarian, Meigs's syndrome, [Rhoads & Terrell] *1684
FIBROSIS: See also Bone Marrow
nerve irritation from, after wrist operation, 68
FIBROSITIS: See Rheumatism, muscular
FILENE, EDWARD A., will, 1373
FILMS: See Motion Pictures
FILTRATION, adsorptive; also ultrafiltration of infusion fluids to remove pyrogen, [Co Tui & others] *230
FI-NA-ST Brand Tomato Juice, 277
FINGARD, DAVID, 794—E
FINGERS: See also Hand; Nails
anomalies, three phalanges on each thumb, 371
dactylitis from pushing back perilunginal tissue (manicure), [Nicholas] 395—ab
dermatitis between, 226
fractures of ungual phalanx, [Perschl] 320—ab
infections, [Koch], 169—ab
occlusion of digital arteries, 1566
overgrowth (local), [Chandler] *1411
ridges on, genetic studies, 1376
FINK'S Magic Oil, 728—BI
FINNEY-HOWARD Foundation: See Foundations
FINOCHIETTO, MIGUEL ANGEL, death, 2002
FIRE: See Burns
FIREWORKS, dangerous amateur, England, 965
Fourth of July injuries from, *1806; 1818—E
FIRST AID: See Spine fractures
FISCHERQUARTZ Cold Mercury Arc Lamp, 503
FISCHERTHERM Short Wave Diathermy Unit, 272; (Super) 2064
FISH: See also Halibut
Oil: See Cod Liver Oil; Liver oil
poisoning or erysipeloid, 152
workers, spirochetal jaundice, 1128—E
FISTULA, anorectal (recurrent), preventing, [Best] 1580—ab
menstrual, [Maliphant] 829—ab
neck, and true branchiogenic cyst, [Meyer] 1851—ab
pancreatic, diet for, 381
pyelophlebitis from perforating duodenal ulcer, [Roberts & Hadler] *1629
vesicovaginal, treatment, [André] 1407—ab; 2000
FITZ, REGINALD H., biography, 2077
FLATULENCE, distention and house dust asthma, 892
distention, pitressin for, [Frazier] 389—ab
FLEISCHMANN'S YEAST not eligible for list of accepted foods; Council report, 276
FLEISHMAN, MARCO, bequest, 1133
FLIES: See also Maggot therapy; Myiasis; Sandfly
transmit undulant fever, [Negro] 1084—ab
FLIGHT: See Aviation
FLOCCULATION Reaction: See Streptococcus, hemolytic; Tuberculosis, serodiagnosis
FLOGGING: See Children, punishment
FLORIDA climate for rheumatic fever patients, [Jones] 1309—ab
Medical Association, protest against federal regimentation, 511
FLOUR, brands accepted, 277; 1127; 1201; 1455
vitamin B_1 and B_2 in wheat and rye bread and flour, 1654
FLOWERS, removal from sickrooms at night, 379
FLUIDS, Body: See Body fluids
Infusion: See Injections, intravenous
physiologic availability in secondary shock, [Smith] 513—ab
FLUORESCENCE Microscopy: See Microscopy
FLUORINE in water, aluminum sulfate removal, [Kempf] 1157—ab
in water, chemical removal, [Elvove] 1581—ab
in water supplies, New Mexico, 881
toxicity, 1929
FLY: See Fleas
FOCH Foundation: See Foundations
FOLLUTEIN: See Gonadotropic Principles
FOOD: See also Diet; Infants, feeding; Nutrition; Vitamins; Index to Organization Section
Allergy: See also Milk; Onions
allergy, [Rinkel] 1489—ab
allergy causes hypertension, [Liston] 466—ab
allergy, identifying foods causing, 591—E
allergy, leukopenic index, [Long] *23; [Denny] 622—ab; 2006
A. M. A. Council on: See American Medical Association
canned, microbiology, [Jones] 315—ab
canned (nonacid), processes for, in metal containers, 1046—E
common, units of measurement and tables of vitamin content, 1204—E
contaminated with poison gases, 1291; 1825
craving for celery, liver and salt, diagnostic import, 1466
dehydration and electrical refrigeration, 1386
Dyes: See Oranges
fungi growth in, not pathogenic to man, 300
handlers, physical examination, (Maine) 53; (South Dakota) 283
mineral oil in; effect on vitamin A utilization, Council report, 1814
poison gas effect on, 1291; 1825
Poisoning: See also Botulism
poisoning by staphylococci, [Timmerman] 1590—ab
poisoning from cream custard cakes, [Geiger] 466—ab
poisoning from cream pastry filling, New York, 282; 594; 1994
supply, nation's, Germany, 1212
syphilis-infectiousness from, 455
U. S. Food and Drug Administration to regulate naming compounds, 715—E; (legislation) 1546—E
FOOT: See also Ankle; Legs; Nails; Shoes; Toes
Acrocyanosis: See Cyanosis
bathing (contrast), use of hose instead of buckets, [Kurtz] 1654—C
callus and corns on, blisters resulting from radium treatment, 1064
care in chronic arthritis, [Kuhns] *1108
deformities, talipes equinovarus in infant, 610
disorders in general practice, [Morton] *1112
gangrene (impending) from ergotamine tartrate treated with papaverine hydrochloride, [Perlow & Bloch] *27
"shuffle foot," 1930
strain (bilateral) from short Achilles tendon, 1220
FOOT AND MOUTH DISEASE, virus, [Galloway] 993—ab
FORAMEN, intervertebral, diseases, [Oppenheimer] 239—ab
FOREIGN BODIES: See Eyes; Heart
FOREIGN FACULTIES: See Schools, Medical
FOREIGN GRADUATES: See Graduates
FORESKINS as skin graft, [Ashley] 1231—ab
FORMOSAN Imperial University, Dr. S. Mita president, 1921
FORT WESTERN Brand Pineapple, 277
FOSHAY, LEE, data on Antitularemic Serum-Mulford, 504
FOULDS Macaroni; Spaghetti, 1637
FOUNDATIONS: See also Index to Organization Section
Air Hygiene, 1733
A. M. A. resolution on psychiatric research by, 41
American, proposals for medical care, 32—E; 1240—E; (self-appointed committee as outgrowth) 1728—E; 1816—E
Bernard (Leon), offers prize, 1375
Blaustein, fund for educational purposes, 1349
Chemical, Inc., president dies, 1915
Commonwealth Fund to build hospital, Utah, 283
Daland (Judson), 1551
Finney-Howard Research, fellowships, 1645
FOUNDATIONS—Continued
Foch, changes name to Medical Foundation of Mount Valerian, 58; (opens hospital) 1825
Friedsam, report of Child Neurology Research, 140
Good Will Fund, E. A. Filene will, 1373
Guggenheim, scholarships for Brazilians in U. S., 1466
Heckscher, opens new departments, 2075
International Cancer Research, Mr. Donner gives funds for, 1644
Markle, grant for endocrine research, 216; 435
Mayo (Dr. Balfour named director) 139; (Mayo home to be used for educational purposes) 718
National Foundation for Infantile Paralysis, 1997
Nemours (bequest of A. I. Du Pont), 281
Rackham Fund, to study rheumatism, 962
Rockefeller, (gift to U. of Minnesota) 53; (gift to Rumania) 726; (malaria project, Florida) 960; (annual report) 1208; (Dr. Eaton's appointment) 1285; (work in Hungary) 1291
FOUR LEAF Clovers, 2156—BI
FOURTH OF JULY injuries, first annual summary; second series, *1806; 1818—E
FOX-FORDYCE DISEASE, 2161
FRACTURES: See also Femur; Fingers; Jaws; Spine; etc.
blood phosphatase and phosphorus (plasma) in, [Peden] 171—ab
bone formation in, promoting, 608
clinic, organization, 368
Colles': See Radius
Committee of British Medical Association report, 57
in children, [Bisgard] 1672—ab
pathologic, [Ghormley & others] *2111
treatment (adequate), in rural hospitals, [Hammond] *407
treatment, maggot, bone regeneration after, [Simon] 1758—ab
treatment, magnesium alloy bone splints, report on, 967
treatment, surgical intervention, 1737
Ununited: See also Clavicle fractures; Radius ununited, simplified technic of onlay grafts, [Harkins & Phemister] *1501
FRAMBESIA, control of yaws, [Saunders] 308—ab
relation to syphilis, [Turner] 462—ab; [Holcomb] 1742—C
treatment, bismuth compounds and neoarsphenamine, 455
treatment, rhodium, [Jahnel] 177—ab
FRANCIS, EDWARD, ill with relapsing fever, 367
FRANK, ROBERT TILDEN, *American Journal of Obstetrics and Gynecology* honors, 215
FRANK BILLINGS Lecture: See Billings
FRASER, WILLIAM, Udga Tablets, 605—BI
FRATERNAL Order of Eagles: See Index to Organization Section
FRAXINELLA: See Dictamnus
FREDET-RAMMSTEDT Operation: See Pylorus stenosis
FREEZING, swelling and discoloration not signs of death from, 1299
FRENCH Academy: See Academy
Gynecologic and Obstetric Congress, 1999
Gynecologic Congress (sixth), 599
Hospital Congress (first), 2150
Hygiene Congress, 24th meeting, 369
League Against Rheumatism, (International Congress) ("International Day") 287; 720; 1051; 1212
Ophthalmologic Congress, 2151
Orthopedic Congress meeting, 1137
Otorhinolaryngologic Congress, 42nd, 287; 2000
Society of Dermatology and Syphilology, prize, 965
Soviet Conference, 59
Surgical Congress, 1735
Urologic Association, 2079
FRENUM habit: See Lips
FREON, used in air conditioning, toxicity, 1567
FRESE'S Hamburg Tea, 1832—BI
FRIEDRICH'S Modification: See Pregnancy, diagnosis
FRIEDSAM Foundation: See Foundations
FRONTAL BONE, Morgagni syndrome, [Raso] 2024—ab
FRONTAL SINUS injuries, [Cairns] 1856—ab
FRUIT: See also Apple; Peach; Pineapple; etc.
contaminated, hazards, 135—E
Dried: See Peach
Dyes Used on: See Oranges
products, reaction of aluminum to, 1555
Sexton Brand Fruit for Salad, 1815
FUEL Oil: See Diesel Engine
FUNDUS oculi: See Eyes
FUNGUS: See also Yeast
flora of normal skins, [Downing] 391—ab
growth in foods; not pathogenic to man, 300
Infection: See Actinomycosis; Grain; Mycosis; etc.
FURFURALS, industrial hazard, [McConnell] *766
FURUNCULOSIS of face, treatment, 278—E; (iodine and dry dressing) [Cummins] 1061—C
FUSEL OIL, industrial hazard, [McConnell] *765

G

G & B Brand Pineapple Juice, 359
GAENSLEN, FREDERICK J., orthopedic school named after, 1916
GALLBLADDER: See also Bile; Bile Ducts; Biliary Tract
calculi, hives after dye test for, 153
calculi, intestinal obstruction from, [Cameron] 88—ab
cholesterol in walls of, variation, 371
disease (chronic), importance of earlier operation, [Niemeier] 1851—ab
disease, pancreatic juice as etiologic factor, [Wolfer] 395—ab
disease (stoneless), cholecystectomy for, [Kunath] •183
inflammation, cholecystitis, [Abell] •1243
inflammation (chronic) vs. irritable colon, [Wilkinson] •1012
opacification by black bile, [Fiessinger] 830—ab
perforation in late pregnancy, [Stone] •1903
surgery, liver deaths, [De Courcy] 618—ab
surgery, postoperative care, [Payne] •1436
surgical excision in typhoid carriers, [Coller] 165—ab; [Lynn] 1403—ab; [Elson] 1755—ab
GALL-DUCTS: See Bile Ducts
GALLSTONES: See Gallbladder calculi
GANGLION (tumor) of tendon sheaths; treatment by puncture, [Bearse] •1626
of wrist, 1929
GANGLIONEUROFIBROMATOSIS of mesentery with malignant degeneration, [Jentzer] 541—ab
GANGRENE: See also Foot; Medicolegal Abstracts at end of letter M
Diabetic: See Diabetes Mellitus
gas, prevention with formol toxoids, [Penfold] 911—ab
gas, treated by complete delimitation in healthy tissue, [Borchard] 997—ab
gas, treated with sulfanilamide, [Bohlman] •254; (effect on Bacillus welchii) [Bliss & Long] •1524
of skin, [Mcleney] 150—C
GARRAGE-fed hog and trichinosis, [Hall] 746—ab
GARRISON, FIELDING H., (interest in history of medicine) 1035—ab; (music and) 1245—ab; (Billings, Osler, Welch and) 1353—ab; (request letters of) [Sligerist] 1934—C
GARVAN, FRANCIS P., death, 1915
GAS, butane gas stoves, necessity for effective flue in, 153
Embolism: See Embolism, air
Gangrene: See Gangrene
mine, effects, 975
Mustard: See β-Chloro-Ethyl Sulfide
Plant: See Dictamnus albus
poisonous, in industry: hydrogen sulfide, 516
toxic, from dynamite and TNT explosions, 1217
warfare, air attacks, (London's water supply in) 516; (national school for protection, Belgium) 596; 888; (precautions against, England) 884; 1825 (gas masks distributed, England) 1053; (gas-proof shelters in hospitals, France) 1054; (protection of food) 1291; 1825; (mask for babies, England) 1918; (English government and precautions against) 2078
warfare, "delayed action" blindness due to, in World War, 516; 1647
GASOLINE, danger of domestic use, 965
GASTRECTOMY: See Peptic Ulcer, surgical treatment; Stomach surgery
GASTRIC Analysis: See Stomach acidity
Juice: See Stomach secretion
Ulcer: See Peptic Ulcer
GASTRIN, [Bollet] 321—ab
GASTRITIS: See Stomach inflammation
GASTRO-ENTERITIS, outbreak, New York, 214
GASTRO-ENTEROLOGY, International Congress (second), 1373; 1553
International Society of, A.M.A. invites to U. S., 48
GASTRO-INTESTINAL TRACT: See also Digestive Tract; Intestines; Stomach; etc.
disease, heterogeneous transfusion in, [Ryss] 1410—ab
disorder, latent syphilis in, [Cannon] •349
disorder not related to vacuoles in lens, 1744
perforation, [Bergh] 1078—ab
portal of entry in poliomyelitis, [Toomey] •402
GASTROSCOPE: See Stomach
GAY, 2156—BI
GEDDES, AUCKLAND: See Index to Organization Section
GELATIN, Dunn's Diamond "D" Brand, 1637
GENERAL ELECTRIC Ultraviolet Lamp, 1934
GENETICS, new developments, Germany, 287
GENITAL SPOTS: See Nose
GENITALS: See also Penis; Vagina; etc.
infection of lower tract in young girls, 1728—E
tumors, rectoscopic differentiation, [Schleyer] 321—ab
GENITO-URINARY TRACT, disorders from spina bifida occulta, [Berri] 1238—ab
GENITO-URINARY TRACT—Continued
syndrome, epilepsy with, 1744
tumors (primary malignant) in children, [Campbell] •1606
GENIUS Vaporine Ointment, 1653—BI
GENTIAN VIOLET Treatment: See Burns
GEORGETOWN University, new Brain Research Institute at, 1284
GERIATRICS: See Old Age
GERMAN Anatomical Society meeting, 1824
Army: See Army
Japanese Medical Society founded, Tokyo, 518
Measles: See Rubella
Orthopedic Society, Congress, 1737
Persecution: See Jews
Red Cross: See Red Cross
Society of Pathology, 2152
Society of Surgery, congress of, 145
GERMENIA Herb Tea, 375—BI
GERMANIN (Bayer 205), cortical necrosis of adrenal, after, [Wells & others] •190
GERM-X, 1060—BI
GESELLSCHAFT der Aerzte of Vienna, celebrate centenary, 446
GESTONI, DIACINTO, A. M. A. resolution on 250th anniversary, 44
GIARDIASIS: See Lambliasis
von GIERKE'S DISEASE: See Glycogen storage disease
GINGIVITIS: See Gums inflammation
GIRLS, basal metabolism of 106 healthy school girls, Boston, 715—E
GITALIN (Amorphous) N.N.R., 2141
GLANDS: See Endocrine Glands; Lymphatic System; Salivary Glands; Sebaceous Glands; etc.
GLANDULAR FEVER: See Mononucleosis, infectious
"GLASS man," exhibit of, 445
GLASSES, contact lenses, 977
correct cylinder for distance vision, 1659
unbreakable lenses: Tulca, 1381
GLAUCOMA, acute and chronic, mechanics in, 1744
Bjerrum's scotoma, 229
surgical treatment, [Woods] 1403—ab
toxicity of atropine by mouth, 813
GLENDORA Brand Tomato Juice, 133
GLIOMA, treatment, roentgen, effects on surrounding tissue, [O'Connell] 1080—ab
GLOMERULONEPHRITIS: See Nephritis
GLO-MORE, Shampoo, 1925—BI
GLOMUS Tumor: See Angioneuromyoma
GLOSSODYNIA: See Tongue, painful
GLUCOSE: See Dextrose
GLUE, bone, infective warts in workers from, [McLaughlin] 1857—ab
GLUTEAL REGION: See also Buttocks; Thigh superior, coccygodynia and pain in, [Thicle] •1271
GLYCERIN, feeding experiments, [Holck] •1517
GLYCEROL: See Glycerin
GLYCERYL trinitrate, biliary colic relieved by, [Walters & others] •1591
GLYCOGEN, liver, effect of yeast on, [Drill] 1853—ab
storage disease, cholesterol metabolism in, [Beuner] 750—ab
GLYCOLS, industrial hazard, [McConnell] •765; 956—E
GLYCOSURIA, Renal: See Diabetes, Renal transitional, in coronary thrombosis, 1829
GOAT, billy goat which gives milk, 1658
Milk: See Milk
Serum: See Hyperthyroidism
GOITER: See also Hyperthyroidism
blood chemistry in thyroid crisis, [Maddock & others] •2130
endemic, heredity, 806
heritability, 1919
prevention, iodized salt, effect on goiter operations, Michigan, [McClure] •782
prevention, iodized salt used in boarding school, 360
sporadic and endemic, Rumania, 290
treatment, conservative and operative, 220
types (four), 220
GOITER, EXOPHTHALMIC, effect of inorganic iodine combinations and of diiodotyrosine on, [Krogh] 1590—ab
in young children, [Crile] 1397—ab
liver involvement, [Reizlaff] 1409—ab
nutritional factors, [Means] 1668—ab
pyelonephritis and, [Bram] 1233—ab
surgery, morbidity in, [Dinsmore] •179
treatment of thyrotoxicosis, role of diet, [Meyler] 1768—ab
treatment, roentgen, [Raagaard] 178—ab
treatment, surgical, [Kämmerer] 1321—ab
GOLD Bridgework: See Teeth
dermatitis, changes in finger nails after, [Belinfante] 398—ab
Salt Treatment: See Arthritis, chronic; Tuberculosis, Pulmonary, treatment
Seal Vegetable Compound for Women, 1832—BI
Sodium Thiosulfate-Abbott, 507
GOLDEN Chemical Compound, 1832—BI
Gate Exposition (San Francisco), health exhibit at, 1287
GOLD-TEX condom, urethritis from, 2009
GOLF, American Medical Golfing Association tournament, (Atlantic City) 141; (San Francisco) 1916
GONADOTROPIC PRINCIPLES, 1376
antigenicity of hormones, 362—E
antophysin, antultrin-S, follutein and A. P. L., 1146
antultrin-S intradermally as a test for pregnancy, [Schneider & Cohen] •115
antultrin-S treatment of acne, [Williams & Nomland] •564
effect on anterior pituitary and diabetes mellitus, 1657
follutein, antultrin-S, etc. and tuberculosis, 1236—E
prolan-progesterone mechanism and vitamin E, [Young] 314—ab
rôle in amenorrhea, [Frank & others] •1883
syncytial reaction in endometrial trauma and infection, [Choisser & Notes] •1628
treatment of adiposogenital dystrophy, [Plum] 1768—ab
treatment of infantile uterus, 1838; 2090
treatment of intentional uterine hemorrhage, 526
treatment of undescended testes, [Dahl-Iversen] 834—ab; [Hess] 1759—ab
treatment of undescended testes not advised in patients under 5, 733
GONADS, hypogonadism, anterior pituitary therapy plus thyroid extract in children, [Jacobsen & Cramer] •101
GONOCOCCUS, septicemia in new-born, [Hoffman & Schneider] •1447
septicemia with purpura and arthritis, fever therapy, [Hazel & Snow] •1275
GONORRHEA: See also Venereal Disease
Arthritis: See Arthritis
blood sedimentation rate in, [Bannick & others] •1257
control (public health), public needs in, [Parran] 1576—ab
control work, graduate instruction in, 2071—E
diagnosis, effect of menstruation, [Puglisi] 2172—ab
diagnosis in men, laboratory methods evaluated, [Carpenter] •1428
diagnosis of cure in nurse; when may she attend patients, 1385
in young girls, 1728—E
involvement of Skene's glands and cervix; diagnosis; treatment, 1743
menstrual pain and cure of, 1837
or nonspecific urethritis, 1386
penis, plastic induration after, 2089
possible, and prostatitis, 1065
problem in U. S. [Vonderlehr & Usilton] •1425
second attack of, 1927
sequels, 518
skin eruptions in, [Levin] 1939—ab
treatment, alpha rays, [Nagell] 630—ab; 1162—ab
treatment, antigonococcus serum, vaccine and filtrate, [Keefer] 164—ab
treatment, combined heating technic, in women, [Bierman] 821—ab
treatment; cure in women, 1837; [Wharton] 2098—ab
treatment, fever, in men, [Parson & others] •18; [Ballenger & others] •1037; [Warren & others] •1430
treatment, sulfanilamide, [Reuter] 238—ab; [Ballenger & others] •1037
treatment, sulfanilamide, in pregnancy, 527
GOODRICH, CHARLES H.: See Index to Organization Section
GOSEWISCH'S Garlic Tablets, 1653—BI
GOUDY'S Magic Liniment, 1741—BI
GOWANS Preparation, 2085—BI
GRABILL'S (Dr.) Prescription No. 1313, 2005—BI
GRADUATE Education: See Education, Medical
GRADUATES, average age—1937, •672; •673
by sex, •669
by states, •667
in U. S.—1905-1937, •671
Negro, •671; •672
of faculties of medicine abroad examined—1930-1936, •675
serving internships, •668
with baccalaureate degrees, •670
GRAFTS: See under Heart; Skin
Onlay: See Bones
GRAIN, fungus infection, relation to vasomotor disorders, [Klein] 390—ab
GRAINALFA, 1660—BI
GRAM'S (Dr.) Grandmother Medicine, 2157—BI
GRANULOCYTOPENIA: See Angina, agranulocytic
GRANULOMA: See also Lymphogranuloma
encephalomyelitis from encephalitozoon, [Wolf] 1309—ab
lycopodium, after using anal suppositories, [Antopol & Robbins] •1192
talcum powder, [Fienberg] 744—ab
GRANULOSA Cell Tumor: See Ovary tumors
GRANZOW'S Tonic Tablets, 1832—BI
GRASS or its juice, growth factor in milk, [Kohler] 989—ab
Pollen Extract: See Hay Fever treatment
GREEN, ARTHUR J.: See Index to Organization Section
GREEN rouge, toxicity, 813
GREGG'S Great Blood Tonic, 1741—BI
GRIP: See Influenza

V 1
193

GROUP HEALTH Association, Inc.: See Index to Organization Section
GROVE'S Laxative Bromo Quinine Tablets; Emulsified Nose Drops, radio program, 716—E
GROWTH: See also Bones; Dwarfism; Infants
effect of diet, [Watson] 993—ab
effect of milk, 968
factor in summer milk (grass or grass juice), [Kohler] 989—ab
local overgrowth, [Chandler] *1411
mystery of, 1056
normal facial, in children, [Young] 1404—ab
GUAIACOL Treatment: See Lungs, abscess
GUGGENHEIM Foundation: See Foundations
GUMS: See also Jaws; Pyorrhea
inflammation, mercury for, [Grove] 1580—ab
inflammation, sensitivity to podophyllum, 155
GUNPOWDER: See also Medicolegal Abstracts at end of letter M
tattoo, surgical removal, [Lindsay] *1530
GYMNASIUM, new, Japan, 887
GYNECOLOGY: See also Obstetrics
American Association of Gynecologists announces new annual prize, 1916
American Board of, examinations, 284; 1287; 2076
Central Association of Gynecologists (prize) 1641; (meeting) 1645
continuous drip transfusion in, [Winterton] 626—ab
French Congress, 599; 1999
International Congress of, 1873
lesions, effect on upper urinary tract, pyelography, [Kretschmer & Kanter] *1097
lesions in syphilitic, [Cannon] *2354
National Congress of (proposed) to be held in 1939, 217
psychotherapy in, 1366—E
GYPTOL, 2005—BI

H

HAIR: See also Alopecia; Scalp
combs (celluloid) ignite, burns from, [Fox] *1978
dyes, dermatitis from, (Oloxo) 286; (Cloral) 2009
dyes, henna and indigo in, 813
dyes, pseudo-icterus not due to henna poisoning; possibly to trinitrophenol, 1146
excessive, hirsutism, [Mencher] *1338
gray, use of vitamin B complex in restoring natural color to, 976
permanent wave, hair discoloration after if scalp treated with mercury, [Siemens] 92
permanent wave, seborrhea of scalp in women, 450
Removal: See also Shaving
removal from nipples by electrolysis, 2161
removal, depth dose in epilation irradiations, [Proppe] 471—ab
tonic, 813
HALE'S Phosphate of Soda Compound, 1741—BI
HALIBUT, vitamin A in viscera (excluding livers), [Lovern] 1406—ab
HALL'S Canker Medicine, 1653—BI
HALLUX Valgus: See Toes
HALOWAX, toxicity, 1386
HAMMOND'S Rotenone Insect Dust, possible toxicity, 1836
HAND: See also Fingers; Nails; Wrist
Acrocyanosis: See Cyanosis
infection from human bites, [Maier] 1399—ab
infections in meat handlers, 975
infections of palm, [Koch] 169—ab
ridges on, genetic studies, 1376
swelling, 1063
Tar Dermament to protect, from industrial irritants, 71
HANDICAPPED: See also Blind; Crippled; Deafness
children, Illinois, (clinic for) 138; (division for) 798
HARRISON NARCOTIC ACT: See also Medicolegal Abstracts at end of letter M
internal use of opium preparations defined, 440
HAWLEY'S Ointment, 2085—BI
HAY FEVER during and after cinchophen jaundice, [Boros] *113
etiology, Spanish moss, [Metzger] 1076—ab
in the South, 227
nervousness and insomnia in, 454
plantain (correction; English and Rugel's), [Blumstein & Tuft] 606—C
skin sensitivity and, 1474
treatment, desensitization, (oral) 376; 1472
treatment, grass pollen extract, [Harley] 315—ab
HEAD: See also Brain; Cranium; Scalp
deformity after childbirth, 1743
injury, cause of dizziness, [Glaser] 742—ab
injury, changes in sensation in leg after, 609
injury, roentgen signs of sequels, [Travers] 539—ab
nod or "nodding spasm," 1747
HEADACHE: See also Migraine
after intraspinal anesthesia, prevention, [Margottini] 832—ab
in hypotension, 1065
postoperative, [Koster] 619—ab
HEALCIDINE Health Salts, 1832—BI
HEALERS and emotional strain, 1529—ab
HEALTH: See also Hygiene; Mental Hygiene; Sanitation; Index to Organization Section
agencies, study, Colorado, 716
album; health "pass," Germany, 517
American Association for, 362—E
American Public Health Association, 1051
Benefit Societies: See Insurance, health
campaign launched, England, 1374; 1463; 2078
center, (New York) 215; 439; 1133; (new, Japan) 887
Child: See Children
climate in relation to, 34—E
Column: See Newspapers
coordinator named: Sen. Rollins, Mo., 439
department, Detroit, case finding work in tuberculosis, [Vaughan & Douglas] *771
department, Louisville, expanded, 364
departments, physician and the state, Italy, 1213
district (new), opened, Maryland, 1642
education in schools, [Rogers] *842 (lectures in high school, Ia.) 1548
Education Institute, 1051
Examination: See Physical Examination
exhibit, (Cleveland Exposition) 215; (Vienna) 445; (New York's World Fair) 439; (Golden Gate Exposition) 1287
Insurance: See Insurance
International Congress of Public Health Officials, 1290
laws on, Italy, 1378
ministry of (creation, Belgium) 222; (annual report, England) 2078
National Institute of: See Health, U. S. Public Health Service
of young men during unemployment, 136—E
officers (district) examination for, Ill., 592
public, and preventive and industrial medicine, [Bristol] *245
public, features of rheumatic heart disease, 959—E
public, service, developments, Germany, 1212
Ray Twin Carbon Arc Sun Lamp, 951
resorts, German, reorganization, 370
state department, (in new home, Okla.) 595; (new laboratory, Mich.) 1914
Statistics on: See Vital Statistics
Student Health: See Students, Medical
Supervision: See Industrial
unit, (new, Nebraska) 1049; (county, organized, Iowa) 1548
U. S. department of, establishment, 32—E
U. S. Public Health Services, (health education activities) 142; (changes in) 217, 720; 1616; 1824; (National Cancer Institute) 434—E; (National Institute of Health) 883; (advisory committee on pneumonia) 1997; (syphilis control work) 2071—E; (on health problem in Chinese war zone) 2142—E
U. S. Treasury Department Appropriation Act grants-in-aid for public health work, 597
vitamin A reserves in, 590—E
Wisconsin's hall of, 1650; 1131—E
world health and League of Nations, 2142—E
HEARING: See also Deafness; Nerves, auditory
aids, Aurex, 585
aids (electrical) in school for deaf, England, 1919
aids, value to child with speech difficulty, 730
defective, early detection and treatment, in children, [Newhart] *1620
problems in education, [Newhart] *839
tests, Council's requirements for audiometers, 1812
tests, use of Edelmann-Galton whistle, 154
HEART: See also Arteries, coronary
Arrhythmia: See Arrhythmia; Heart rate
athletics and, [Cooper] 316—ab
beat, heterotopic stimulus formation, [Bloch] 751—ab
block (complete) in pneumonia and peritonitis, [Swift & Smith] *2038
changes with uterine myoma, [Dietal] 1084—ab
compression due to pericardial scar, roentgen diagnosis, [Freedman] 821—ab
cripple problem vs. panic, publicity and polio, 937—E
defects in childhood, [Hecht] 2026—ab
diphtheria (severe) effect on, [Thompson] 235—ab
Disease: See also Cardiovascular Disease; Endocarditis; Pericarditis; etc.; Index to Organization Section
disease, annual symposium on, San Francisco, 1284
disease, attacks and indigestion, 1297
disease, clinical efficacy of digitalis preparations, [Stroud & Vander Veer] *1808
disease complicating pregnancy, [Consoli] 242—ab; (obstetric problem) 1746
disease (coronary), prognosis, [King] 83—ab
disease, death rates from, 153
disease (decompensated), water exchange in lungs in, [Calabresi] 1494—ab
disease, Gitalin (Amorphous) N.N.R., 2141
disease, hospital project for children, Minnesota, 438
disease in nutritional deficiency, [Weiss & Wilkins] *785
disease in pregnancy, [Tamis & Clahr] *197
HEART—Continued
disease, inhalation therapy with oxygen also helium, [Barach] 622—ab
disease, lectures on, New York, 1133
disease, measuring blood pressure in pulsus alternans, 1747
disease patients, work for, 1829
disease racket; disability insurance fraud, 34—E
disease (rheumatic), [Rosenberg] 311—ab
disease (rheumatic) in Philadelphia children, [Cahan] 535—ab
disease (rheumatic), public health features, 959—E
disease, total thyroidectomy in, [Singer] 752—ab
disease "toxic" postpartal, [Hull] 82—ab
echinococcus, [Wydrin] 998—ab
electrocardiogram after work as cardiac function test, [Nylin] *1333
electrocardiogram, children's, changes in, [Drawe] 461—ab
electrocardiogram, effect of posture, [Erkelens] 1678—ab
electrocardiogram in bacterial toxin poisoning, [Weber] 1944—ab
electrocardiogram in diphtheria, [Szczeklik] 752—ab
electrocardiogram, precordial leads in acute myocarditis, [Mortensen] 544—ab
electrocardiogram, U wave in, [Blumberger] 1409—ab
electrocardiographic aspects of angina pectoris, [Froment] 1764—ab
electrocardiographic diagnosis in coronary occlusion, [Wolferth] *1772
electrocardiographic differences in pulmonary embolism vs. cardiac infarct, [Barnes] *1350
electrocardiography in small children, [Glendy] 985—ab
embolism (left heart arterial air) [Hall] *125
Failure: See Heart Insufficiency
foreign bodies (needle), [Rea & Hoover] *266
function tests; volume determination, electrocardiogram after work; oxygen debt, [Nylin] *1333
grafting vascularized tissues on, to produce new blood supply, [Feil & Beck] *781
in bronchial asthma, [Colton] 310—ab
in pulmonary tuberculosis, [Gosse] 171—ab
Infarction: See Heart muscle; Heart, septum
inflammation, scurvy and carditis, [Taylor] 174—ab
insufficiency, action of theophylline with ethylenediamine on failure, [Greene & others] *1712
insufficiency (left ventricular), treatment, [Smith] *646
insufficiency, ouabain orally, [Livieratos] 1168—ab
insufficiency, physiologic bases of circulatory collapse, 146
insufficiency, roentgen aspects of interlobar fissures, [Roubier] 1319—ab
insufficiency, total thyroidectomy for congestive failure, 210—E; (injury to laryngeal nerve) [Quinlan] 809—C; [Young] 1295—C; [Batson] 1562—C; [Quinlan] 2087—C
lesions due to blunt force, [Munck] 322—ab
murmur (functional systolic) in children, [Diaz Nielsen] 1476—ab
Muscle: See also Myocarditis
muscle, hyperplasia and regeneration in children, [MacMahon] 1847—ab
muscle infarction complicates pregnancy, [White & others] *863
of soldiers, study of, 519
output, effect of posture, [Sweeney] 1847—ab
output, measurement, [Cooke] 1681—ab
pains during splanchnicotomics, [Leriche] 748—ab
phases can be photographed in sequence with "telecord," 969
pump constructed like human heart demonstrates blood circulation, 445
Rate: See also Tachycardia
rate, unsteadiness in psychoneurotic, [Whitehorn] 823—ab
rôle in growing old, 1829
septum infarct with protracted fever, [Lubry] 175—ab
surgery, especially wounds, valvular lesions, 1828
tamponade symptom in pericarditis, [Shipley] *1017
throughout various periods of life, [Willius] 81—ab
tobacco, [Golston] 1582—ab
trauma and cardiac injury, 154
tumors, diagnosed before death, [Smith] *1192
tumors, epicardiac coelothelioma, [Andolf] 998—ab
tumors, metastatic neuroblastoma of right auricle, [Doane & Solis-Cohen] *578
Ventricular Failure: See Heart Insufficiency
volume and stroke volume changes, [Nylin] *1333
HEAT: See also Cold; Temperature
effect, in multiple sclerosis, [Simons] 1400—ab
effect of boiling on nutritive value of milk, [Graham] 909—ab

HEAT—Continued
effect on antiscorbutic value of vegetables, [Levy] 1319—ab
produce fracture of skull and hemorrhage after death? 525
Regulation: See also Metabolism, basal
regulation and vitamin C, [Hasselbach] 1588—ab
Stroke: See also Medicolegal Abstracts at end of letter M
stroke in workmen, [Talbott] 392—ab
stroke, salt tablets for—possible overdosage, 972
Therapeutic Use: See Gonorrhea
HEATING, air conditioning, A. M. A. committee report, [Yaglou] *945
effective flue in butane gas stoves, 155
HECKSHER Foundation: See Foundations
HEIGHT: See Body height
HEINZ Strained Beef and Liver Soup, 359
HELIUM Inhalation: See Heart disease; Respiratory Tract disease; Trachea
HELLERSTROM, SVEN, requests data on venereal lymphogranuloma, 1208
HEMANGIOMA, treatment, radioactive substances [Müller] 1495—ab
unilateral erythema of face in infant, 1747
HEMATEMESIS, recurrent, with splenomegaly, 2151
HEMATOCRIT: See Blood volume
HEMATOMA, posttraumatic juxtadural, [Drebs] 994—ab
HEMATOPOIESIS: **HEMATOPOIETIC SYSTEM**: See Blood formation
HEMERALOPIA, vitamin A and carotene utilization, 1045—E
vitamin A deficiency and auto driving at night, [Jeghers] *736 (correction) 965
HEMIATROPHY: Nalls
HEMIPLEGIA: See also Medicolegal Abstracts at end of letter M
after electric shock, 895
HEMOCHROMATOSIS, iron metabolism in, [Fowler] 1853—ab
HEMOGLOBIN, iron released by destroyed hemoglobin, 279—E
HEMO-LIVER, 606—BI
HEMOLYSIS: See also Anemia, hemolytic; Jaundice, hemolytic
in nephritis in saponin systems, [Herrald] 1845—ab
total, tetanus with, [Hall] 2021—ab
HEMOPHILIA, in Negroes, use of blood coagulant extract from placenta; also theelin, [Pachman] 538—ab
in women, [Bauer] 93—ab
infected wound in, maggot therapy, [Pohle & Maddock] *2055
purpura with coagulation disorder simulating, [Tschopp] 751—ab
treatment, coagulation-promoting substance from normal serum, [Bendien] 1846—ab
HEMOPTYSIS: See Tuberculosis, Pulmonary
HEM-O-REM, 1925—BI
HEMORRHAGE: See also Lungs; Uterus; etc.; Medicolegal Abstracts at end of letter M
concealed, [Harkins] 619—ab
heat produce after death? 525
prognostic value of radial pulse in transfusion, [Fourestier] 913—ab
Purpuric: See Purpura haemorrhagica
treatment, hemostatics, 2010
treatment, snake venom locally, 598
vitamin K, [Quick] 66—C
HEMORRHOIDECTOMY wound, lycopodium granuloma from using anal suppositories in, [Antopol & Robbins] *1192
HEMOSTATICS: See Hemorrhage treatment
HEMOTHERAPY, autohemotherapy in psoriasis and herpes zoster, [Barkadale] 1855—ab
autohemotherapy in ocular muscle, paralysis, [Campos] 2108—ab
autohemotherapy in syphilis, [Baer] 1234—ab
HEM-ROID, 2085—BI
HENNA in hair dyes, 813
poisoning, pseudo-icterus not due to, 1146
HENOCH Purpura: See Purpura fulminans
HENRY CLAY Roller Extract Flour, 1455
HENRY'S Deep Rock Oil, 2156—BI
HEPATITIS: See Liver inflammation
HEPATORENAL SYNDROME: See Kidneys; Liver
HERB-NU Tonic, 1068—BI
HERBS, Germania Herb Tea, 375—BI
HEREDITY: See also Albinism; Cancer; Eyes, blue; Goiter; Hyperthyroidism; Paralysis agitans; Rheumatism; Thyroid, etc.
anlage, effect, 1649
in twins, effect of environment, Germany, 287
neuropathic constitution and, 1991—E
syndrome of hypoplastic patella, malformed radius, etc., [Montani] 541—ab
HERMAPHRODITISM, billy goat which gives milk, 1658
pseudohermaphroditism, orchidectomy be performed? 844
HERNIA: See also Fascia; Medicolegal Abstracts at end of letter M
development and large inguinal rings, 974
direct and indirect, length of inguinal ligament to decide, [Harris & White] *1900
inguinal, surgical technic, [De Souza Nazareth] 629—ab
HERNIA—Continued
scrotal right, and undescended right testis, 1931
symptomless, in industrial worker, 70
treatment, injection, 1456—E
varicocele not considered predisposing to, 2009
HEROES: See also Martyrs
Fay (V. G.), beaten on answering call, 594
Francis (Edward) ill with relapsing fever, 367
Freeman (J. T.), police surgeon attacked, 440
HERPES: See also Dermatitis herpetiformis
facialis with dendritic ulcer of cornea, [Neame] 624—ab
simplex (recurrent), smallpox vaccine treatment, [Foster] 987—ab
zoster, autohemotherapy, [Barksdale] 1855—ab
zoster of epiglottis, [Franchini] 91—ab
zoster ophthalmicus, posterior pituitary solution for, 976
zoster, pathogenesis in lymphatic leukemia, [Schelnker] 916—ab
zoster, relation to chickenpox, [Stern] 747—ab
zoster, treatment vitamin B_1, 71
HERRIES, W. J., fraudulent repair man, 366
HEXALIN, industrial hazard, [McConnell] *764
HEXANONE, industrial hazard, [McConnell] *765
HEXYLRESORCINOL as urinary antiseptic, [Walther] *1001
HIGH BLOOD PRESSURE: See Blood Pressure
HIGH TENSION (Models CP—990 and HCP—990) 207
HILDEBRAND'S Gall Stone Capsules, 1832—BI
HILL, BRADFORD, PRINCIPLES OF MEDICAL STATISTICS, 713—E
HINDUS, diet, supplements (skimmed milk, soya bean, etc.), [Aykroyd] 1081—ab
HINES-BROWN Cold Pressor Test: See Blood Pressure
HINTON Test (Davies Modification): See Syphilis serodiagnosis
HIP JOINT: See also Pelvis; Thigh
arthritis (hypertrophic) 610
coxa vara, bolting or boring of neck of femur, [Dreyfus] 241—ab
dislocation, congenital, 1657; 1837
fixation, [Schmelcke] 314—ab
lesions, differentiation, 2087
tuberculosis, 1837
HIPPURIC Acid Test: See Liver function
HIRSCHSPRUNG'S Disease: See Colon, megalocolon
HIRSUTISM: See Hair, excessive
HISTAMINE, action exerted on general biologic action of x-rays, [Forfota] 996—ab
histidine solution, action on intradermal injection, [Aron] 830—ab
in Blood: See Blood
injection intensifies allergy, [Corelli] 1765—ab
test (double) to study peptic activity, [Rivers] 903—ab
test of capillary circulation, 1297
test of gastric secretion, 1565
tolerance test of respiratory function, [Schlosser] 1767—ab
HISTIDINE, antagonistic to epinephrine, 229
histamine solution, action on intradermal injection, [Aron] 830—ab
Treatment: See also Peptic Ulcer
treatment, clotting time of blood after, [Bloch & others] *1204
HISTORY, Patient's: See Case Records
HOBSON'S (Dr.) Whooping Cough Syrup, 1925—BI
HOEBER, PAUL B., dies, 718; (firm to continue) 1733
HOG, garbage-fed, and trichinosis, [Hall] 746—ab
HOLBROOK'S India Koff Kure, 1653—BI
HOLFORD'S Inhaler, 1925—BI
HOMATROPINE, accidental use of scopolamine for, [Dameshek & Feinsilver] *561
HOMEOPATHY, state board reports, (Maryland) 392; (Connecticut) 456; 1749
HOMOSEXUALITY: See Sex perversion
HONEY Grove Brand Syrup, 359
HOOLE, Dr., death, 61
HORDEOLA, treatment, quinine locally, [Robinson] 990—ab
HORDER, Lord, on physician of the future, 1824
HORMONES, regulations, International Medical Days discuss, 1210
serologic antibodies against, complement fixation reaction, [Bauer] *1442
Sex: See Androgens; Estrogens; Gonadotropic Principles; Hormones
HOSPITALS: See also Sanatorium; Medicolegal Abstracts at end of letter M; Index to Organization Section
activities, Vienna's, growth of, 600
admission of nonindigent, Belgium, 1465
American Hospital Association, 39th annual convention, 801
American, of Paris needs financial help, 516
Approved: See Hospitals, registered
bequests and donations, 56; 141; 294; 883; 2076
Beth David, dedicated, 1550
HOSPITALS—Continued
British missionary services, to wounded in China, 1288
cancer, Memorial Hospital, 513
cardiac, project for children, Minnesota, 438
Carlos Chagas, of Rio de Janeiro opened, 1407
charitable, physicians on staffs, Germany, 518
Charity, New Orleans, work begins on, 512
Chicago Fresh Air, changed to Birchwood Park Sanitarium, 138
City: See Hospitals, municipal
commission (new), Dr. Barrett director, Michigan, 1820
Commonwealth Fund to build, Utah, 283
Cook County, therapy; (blood preservation) [Fantus] *1128
Federal Regimentation: See Medicine, state
Foch Foundation, (changes name), 58; (opening) 1825
for American Indians, Arizona, 1048
for Chronic Diseases on Welfare Island, New York, 1371
for Joint Diseases, (residency available) 513; (staff appointments) 1643
for Negroes, first state owned, Maryland, 881
French Congress (first) discuss social laws and hospitalization, 2150
gas-proof shelters in, France, 1054
insurance, committee to study, Wisconsin, 1823
isolation, for contagious disease, 295
isolation wards (scarlet fever) reinfection causes complications, [Allison] 173—ab
Knickerbocker (N. Y.), 75 years old, 283
life, spirit of, 1126—ab
military, surgical work in, 1921
municipal, Boston City, Bowling unit completed, 881
municipal, Cleveland City, centennial, 1644
municipal, of London, 1647
municipal, on 8 hour day, New York City, 282
nationalization of public hospitals, New Zealand, 1291
naturopathic fake drive solicitors, sentenced, Philadelphia, 1133
North Mississippi Community, opened at Tupelo, 1549
nurseries, outbreaks of highly fatal diarrhea in new-born, [Rice & others] *475
osteopath suit: hospital upheld, 1643
pledges to, must be paid, court decision, N. Y., 882
Presbyterian, N. Y., acquires property, 215
psychiatric, named for late Dr. M. A. Bliss, St. Louis, 799
psychiatric, new, at Runwell, Essex, 368
psychiatric, number of patients doubles in 25 years, Illinois, 1993
psychiatric, started, Kentucky, 593
psychiatric (state) status changed, Ann Arbor, 1049
psychiatric, syphilis in, 1062
Reading, memorials at, 1915
registered by A. M. A., 72; *683; *893; 715—E; 2091
rural, adequate fracture treatment in, [Hammond] *487
St. Elizabeth's, (Dr. Overholster to superintend) 1132; (openings for physicians) 1462
St. Luke's new x-ray department, 1460
service (free), abuse of, Paris, 144; 885
service (free) and votes for politicians, France, 1210
sit-down strikers, New York City, 719
staff intercommunication with students, London, 1825
staff vacancies, examination, 148
state, new board for, Virginia, 595
state, new buildings dedicated, Massachusetts, 513
statistics, Germany, 1213
United Hospital Fund, 1731
veterans, annual report, 56
ward, Paris, named for Dr. Chevalier Jackson, 1648
Wesley, work begins on, Chicago, 52
HOUSE dust asthma and abdominal distention, 892
HOUSING: See also Rooms
inadequate, widespread existence, France, 1137
HOWARD-FINNEY Foundation: See Foundations
HULBURT'S Brand California Lemon Juice, 587
HUMIDIFICATION, artificial, [Yaglou] *946
HUMIDITY, deficient, factor in asthma, [Parlato] 1579—ab
electrical refrigeration and dehydration of food, 1386
HUNGARIAN Ointment, 606—BI
HUNGER: See Fasting
HURST, ARTHUR, knighted, 57
HYDATIDIFORM Mole: See Uterus
HYDNOCARPATES Treatment: See Lupus vulgaris
HYDRAMNION: See Amnion, dropsy of
HYDROCARBONS: See also Benzoyprene
industrial hazard, [McConnell] *763
HYDROCKLE, reaction to sodium morrhuate injections for, [McCastor & McCastor] *1799
HYDROGEN ION CONCENTRATION, buffering eye solutions, 377
HYDROGEN PEROXIDE as depressant of gastric acidity, [Culmer] 461—ab

HYDROGEN SULFIDE, mine gases and their effects, 975
poisonous gases in industry, 516
HYDROQUINONE, "stabilizing" agent in vitamin A preparations, Council report, 1454
HYDROTHORAX in ovarian fibroma, [Rhoads & Terrell] *1684
β-HYDROXYACETONE and liver function in pregnancy, [Dietel] 1944—ab
HYGIEN Tablets, 1832—BI
HYGEIA: See American Medical Association
HYGENA, 2005—BI
HYGIENE: See also Health; Industrial; Mental Hygiene; Sanitation
French Congress, 24th meeting, 369
of Pregnancy: See Pregnancy
HYPERCHOLIA: See Feces
HYPEREMESIS gravidarum: See Pregnancy, vomiting of
HYPERGLYCEMIA: See Blood sugar
HYPERINSULINISM: See Pancreas secretion
HYPERPARATHYROIDISM: See Parathyroid
HYPERPYREXIA: See Fever, therapeutic
HYPERTENSION: See Blood Pressure, high
HYPERTHERM, Kettering: See Chorea
HYPERTHYROIDISM: See also Goiter
diagnosis, myasthenia gravis simulates, [Barton & Branch] *2044
hereditary pathology, 288
in mother with primary thyroid hyperplasia in still-born twin, [Warren & Shpiner] *575
in young children, [Crile] 1397—ab
liver function in, [Maddock & others] *2131; (hippuric acid test), [Bartels] 621—ab
liver glycogen during, effect of yeast on, [Drill] 1853—ab
psychosis in, 2089
recurrent, after thyroid surgery, [Dinsmore] *183
treatment, blood serum of thyroidectomized goats, 71
treatment, fallacy of using iodine after thyroidectomy, [Davison] 312—ab
treatment, inorganic iodine combinations; diiodotyrosine, [Krogh] 1590—ab
treatment, radiation, [Harris] 905—ab
unusual aspects, [Dowden] *1197
HYPERTROPHY, unilateral, [Chandler] *1411
HYPNOTICS, narcotic habit from, 527
HYPNOTISM, self, 1136
HYPOGLYCEMIA: See Blood sugar
Therapeutic: See Dementia Praecox; Trypanosomiasis
HYPOGONADISM: See Gonads
HYPOLARYNX: See Larynx
β-HYPOPHAMINE: See Pituesin
HYPOPHYSIS: See Pituitary
HYPOPROTEINEMIA: See Blood proteins
HYPOTHYROIDISM, bullous impetigo or toxic erythema? 1383
fatigue with low metabolic rate, 811
without myxedema, [White] 392—ab
HYSTERECTOMY: See Uterus excision

I

I. G. A. Brand Table Syrup, 1201
ICE CREAM, Ann Page Ice Cream Dessert Powder, 1127
typhoid infection from, 1920
ICTERUS: See Jaundice
IDE Color Test: See Syphilis, serodiagnosis
IDIOCY, mongolian, 1835
IKEDA, YOSUCHI, death, 2154
ILEITIS, regional: Crohn's disease, [Hodgson] 88—ab; (prognosis), [Crohn] 169—ab; 360—E; [Jackson] 1079—ab; [Pickhardt & Rafsky *2048
ILEOCOLITIS, dysentery in children, [Blacklock] 1405—ab
ILEOSTOMY, postoperative study, [Whittaker] 84—ab
ILEUM, fat absorption, [Doublet] 165—ab
ILIUM, fracture of anterior superior spine from running, [Mooney] *866
ILLINOIS Medical Society: See Index to Organization Section
ILLUMINATION: See Lighting
IMMUNITY: See also Malaria; Poliomyelitis; Smallpox
connective tissue and defense reactions, 1169—ab
corneal, stimulation by irradiation, 510—E
thyroid hormone effect on, [Rocchini] 1942—ab
IMMUNIZATION: See also Diphtheria; Poliomyelitis; Rabies; Tetanus; Tuberculosis
cevitamic acid stimulation of specific antibody production, 714—E
protamine in, 300
IMMUNOLOGY, research in, 1999
IMPETIGO, bullous, or toxic erythema? 1383
IMPOSTORS, warning against, 883; 1645
IMPOTENCE and azoospermia, 2160
cystitis with, 527; (reply) [Borrell] 896
period of potency in man, 891
treatment, surgical, 970
INCLUSION Bodies: See Measles
INCOME: See also Index to Organization Section
estimate of life earnings, 284
Tax: See Tax
INDIA: See Hindu
INDIANA University, (new division of laboratories) 364; (gift to library) 1820
INDIANS, American, new general hospital for care of, 1048
INDICAN in Blood: See Blood
INDIGENT: See Medical Service for indigent; Physicians, indigent
INDIGO in hair dyes, 813
INDOLE, experimental anemia, 1458—E; (correction) 1733
INDUSTRIAL: See also Workmen's Compensation Acts; Index to Organization Section
accidents, laws on, Italy, 1213
accidents, report of Fracture Committee of B. M. A., 57
blindness from trachoma, [Gradle & De Francois] *253
city hospitals on 8 hour day, New York City, 282
dermatitis from Halowax and chlorinated naphthalenes, 1396
dermatitis from torch oil, [Kammer & Callahan] *1511
dermatitis in platers, 1064
Disease: See also Industrial dermatitis; Industrial poisoning; Pneumoconiosis; etc.
disease and hygiene, Northwestern University symposium on, 961
disease, asthma from sulfur dioxide in refrigerator repairman, [Dowling] 2020—ab
disease, chronic myelogenous leukemia in machinery oilers, 1376
disease, heat stroke, salt tablets for, 972
disease, hernia (symptomless) 70
disease, icterohemorrhagic spirochetosis in coal miners, dishwasher, etc., 443; 1826
disease in chromium platers, 1922
disease, infective warts from bone glue, [McLaughlin] 1857—ab
disease, insurance (mutual) against, Italy, 519
Disease Law: See Workmen's Compensation Acts
disease, legislation, France, 723; 1211
disease, meningitis in swineherds, [Fatzer] 1083—ab
disease, "milker's warts," [Bonnevie] 85—ab
disease, nasal septum perforation in copperplating, [Barsky] 466—ab
disease, otitis media in airplane pilots, [Armstrong & Heim] *417
disease, pathologic aspect; intolerance in, etc., 722
disease, prevention, [Selby] *1167
disease, prevention, treatment, 722
disease, "q" fever in meat workers, Brisbane, [Derrick] 1586—ab
disease, reportable, Michigan, 1994
disease, spirochetal jaundice, 1128—E; (in Vienna) [Fleischeder] 2025—ab
disease, tuberculosis in coal miners, 602
disease, tularemia from tick infested sheep, [Winter & others] *258
disease, xanthoma tuberosum in tile setter, [Sugg & Stetson] *414
dusts and fumes, control, Massachusetts, 1549
employees, sickness increased in 1936, U. S., 964
factory work in relation to pregnancy, 722
fatigue, nature, 879—E
hazard, effects of alcohol on workers with carbon disulfide, 1472
hazard of banana oil or amyl acetate, 2159
hazard of bentonite dust, 1656
hazard of electric arc welding, 975
hazard of green rouge or chrome green, 813
hazard of materials used in lining beer cans, MEK, LAC X21B, 891
hazard of Shell's Kleenzit (petroleum distillates with carbon tetrachloride), 1658
hazard of soldering process, 893
hazard of sterility in pulp workers using sulfurous acid and chlorine, 378
hazard of varnish for beer barrels, 454
hazard of volatile solvents, [McConnell] *762; 956—E
Health, A. M. A. Council on: See also Index to Organization Section
health, A. M. A. Council on, 856—E; 1990—E
health supervision of youthful workers, 222
hygiene, (program, Germany) 517; (new division of, Alabama) 960
hygiene program, vaccines against common colds in, industrial health program? [Bristol] 1848—ab
infections of hands in meat handlers, 975
injurious effects of heat on workmen, [Talbot] 392—ab
injury and cancer, 2152
injury, neurologic symptoms due to, 298; (reply) [Katz] 733
injury of blood vessels by pneumatic tools, [Junghanns] 832—ab
injury, percentage of loss of vision, 1474
injury, relation to peptic ulcer, 1220
Japan, Research Institute of Industry and Labor, 1921
Medical Research Institute established by auto workers, Detroit, 717
medicine and public health, [Bristol] *2145
Medicine, International Congress (first), 722
medicine, legal responsibility in, 219
medicine, teaching in France, 722
INDUSTRIAL—Continued
occupation in coronary artery thrombosis, [Master & others] *2547
occupation, life earnings according to, 284
Poisoning: See also Industrial dermatitis; Industrial hazard
poisoning, aniline, 2158
poisoning, brass, symptoms; treatment, 972
poisoning, carbon tetrachloride, 1144
poisoning, cedar, predispose to lung infections? 1744
poisoning, fish, or erysipeloid, 152
poisoning, fuel oil from Diesel engine penetrates tissue, [Recs] *866
poisoning, gases from dynamite and TNT explosions, 1217
poisoning, gases from mines, 975
poisoning, hydrogen sulfide, 516
poisoning in railway employees, 888
poisoning, lead, diagnosis and treatment, 811
poisoning, tellurium, 1746
poisoning, trichlorethylene, 810
Unemployed: See Unemployed
INFANTILE PARALYSIS: See Poliomyelitis
INFANTS: See also Children; Infants, New-Born; Pediatrics; and under names of specific diseases
ankle clonus in, at 3 months, 1835
convulsions in, diagnosis; treatment, 295
erythema (unilateral) of face in, 1747
Feeding: See also Infants, premature
feeding, acidified milk with high fat content in eczema, [Traenaro] 542—ab
feeding (breast), alcohol and nicotine poisoning, [Wyckerheld Bisdom] 178—ab
feeding (breast), effects of mother's use of morphine and calomel, 67
feeding, Heinz Strained Beef and Liver Soup, 359
feeding, Larsen's "Freshlike" Strained Cereal, 433
feeding, Olac, 1127
feeding, Ranney's Strained Unseasoned Products, 433
feeding, Robin Strained Unseasoned Products, 587
feeding, Stokely's (liver soup) 133; (vegetable soup) 1043
growth (mental-physical) vs. vitamin B, intake, [Colby] 1846-ab
head deformity after labor, 1743
Mortality: See also Infants, premature
mortality and morbidity, campaign against, Switzerland, 806
mortality, factors responsible, Chicago, [Bundesen & others] *337
mortality rate (record low) in Adelaide, 1055
mortality, reduction, [Januschke] 398—ab
mortality; sudden death in 18 month old, 1221
premature delivery rôle in cerebral disorders, [Brander] 322—ab
premature, estrogen orally to, [Potter] 747—ab
premature, mortality, [Siedentopf] 471—ab
premature, new feeding for, [Stoesser] 1100—ab
streptococcic infection (fulminating) in, [Rector] 311—ab
welfare (program, Germany) 804; (symposium) 885; ("Children's Year" conference) 1997
INFANTS, NEW-BORN: See also Embryo; Fetus
anemia of, [Pêhu] 317—ab; (iron amonium citrate dosage in) 1146
Asphyxia: See Asphyxia
bucconasal membrane (persistent) in, [Lemere] *347
diarrhea epidemic in hospital nurseries, [Rice & others] *475
gonorrheal sepsis in, [Hoffman & Schneider] *1447
Melena: See Melena neonatorum
meninges hemorrhages, [Rivière] 1160—ab
Mortality: See Fetus mortality
Ophthalmia: See Ophthalmia neonatorum
pyuria in, [Miller] 746—ab
Resuscitation: See Asphyxia neonatorum
salt-water metabolism, [Kerpel-Fronius] 750—ab
skin care, [Sanford] 826—ab
syphilis in, positive Wassermann on cord blood, 451 (replies), [Davies] 977; [Cormia] 1065; [Heller] 1654—C; 1930
tetany, [Zahorsky] 226—C
INFARCT: See Heart; Intestines; Lungs; Pancreas; Uterus
INFECTION: See also Bacteria; Meningococcus; Pneumococcus; Streptococcus; under names of specific organs and regions
Bite: See Bites
death (sudden) in 18 month old infant caused by, 1221
death (uncertain cause of), 154
Focal: See also Teeth, infected; Tonsils, infected
focal, "muscular fibrillation" in, [Slauck] 319—ab
Intrapartum: See Labor
resistance to, and diet, [Watson] 993—ab
vitamin C and, 288; [Faulkner] 535—ab; (content of tissues), [Harris] 1492—ab
INFECTIOUS DISEASES: See also Communicable Diseases; and under names of specific names of infectious diseases

INFECTIOUS DISEASES—Continued
aviation and, 968
in respiratory tract, sequence, [Settel] 1233—ab
isolation hospital for, 295
INFLAMMATION: See also Bladder; Breast; Gallbladder; etc.
treatment, roentgen, 969
INFLUENZA, complications, nonspecific urethritis, 810
complications obstructive emphysema and atelectasis, [Snow & Cassana] •1886
grip as seen in pediatric practice, [Aldrich] 1760—ab
infection from anesthesia machine, 1218
lung changes in [Scadding] 2170—ab
"mucin virulence" of Haemophilus influenzae, 1283—E
prevention, quinine, [Spitta] 176—ab; 290
progress in research on virus and on vaccination, 1202—E
virus cause neurologic symptoms? [Neal] 1490—ab
virus (human), pathogenicity to animals, [McIntosh] 1491—ab
virus (human) studies during epidemic, [Francis & others] •566
INFUSION: See Injections, Intravenous
INGUINAL Ligament: See Ligaments
rings (large) and hernia development, 974
INHALATION Therapy: See Heart disease; Respiratory Tract
INHIBINS in human milk, 1640—E
INJECTIONS: See also under names of specific substances
intradermal, physiclinical studies, [Aron] 838—ab
intramuscular, in buttocks, 71; 300
Intravenous: See also Lungs abscess
intravenous, experimental gas embolism, [Richardson] 310—ab
intravenous, new method of preparing fluids, [Co Tui & others] •250
spinal (epidural), of any substances, 1743
Subarachnoid: See Pain, relief of
Treatment: See Hernia; Varicose Veins, treatment
INJURIES: See Brain; Face; Head; Industrial; Spine; Trauma
INSANITY, laws, Austrian, proposed revision, 1465
manic-depressive, diagnosis, 381
INSECTICIDES, hazards of contaminated fruits and vegetables, 135—E
preventing arsenic poisoning, Louisiana, 364
toxicity of fluorides, 1929
toxicity of rotenone insect dust, 1836
INSECTS: See also Flies; Mosquitoes; etc.
retain plague infection for 10 months, 1131
INSOMNIA: See Sleep disorders
INSTITUTE: See also Pneumonia; Research; Tumor
of Medical Research, Adelaide, South Australia, 1656
of Medicine of Chicago, survey of medical services of prisons, Illinois, 1548
of Surgery, Buenos Aires, 1139
on Cardiovascular Disease, Cincinnati, 1286
on Exceptional Child, 1372
INSTITUTIONS: See also Hospitals; Sanatorium
canners in, safe processes for, 1046—E
carrier survey, [O'Callaghan] 1081—ab
INSTRUMENTS: See also Apparatus
dermagraph or pinwheel, for localizing pain, [Stern] •346; [Wartenberg] 1294—C
for continuous reading of rectal temperature, [Bierman] •867
Musical: See Saxophone
repair man (fraudulent), W. J. Herries, 366
INSUFFLATOR, Shelanski vaginal, 1453
INSULIN, allergy, [Masek] 469—ab; 732
Hyperinsulinism: See Pancreas secretion
mental disorders from atropine or novatropine given after, [Quigley] •1363; [Quinlan] 2006—C
Protamine: See Diabetes Mellitus
serologic antibodies against, [Bauer] •1442
Shock Treatment: See Dementia Praecox
Treatment: See also Dementia Praecox; Diabetes Mellitus, insulin in
treatment of nondiabetic malnutrition, [Ellman] 468—ab
INSURANCE: See also Medicolegal Abstracts at end of letter M; Index to Organization Section
disability, fraud; heart disease racket, 34—E
health, Austria, annual report, 2080
health benefit societies, Japan, 2154
health (compulsory national), Australia, 1556
health, England, (capitation fee) 218; (bottle habit under) 1646; (juvenile extension) 1918
health, for sailors, Italy, 1378
health (private), Germany, 2152
health, societies; supervisory medical consultants, Germany, 444; 2001
health, system proposed, South Africa, 60
Hospital: See Hospital
legal responsibility in industrial medicine, France, 219
life, and cardiac arrhythmia, 892
life, physicians, meeting of, 216
mutual, for industrial diseases, Italy, 519
INSURANCE—Continued
social, France (conflicts between physicians and inspectors) 220; (during 1934 and 1935) 516; (professional secrecy and Hippocratic oath) 517; (specialists in) 723; (abuse of free medical care) 885; (applied to railway employees) 1551; (laws and hospitalization) 2150
INTELLIGENCE QUOTIENT of children of premature birth, [Brander] 322—ab
INTERCOURSE, Sexual: See Coitus
INTERFEROMETER, examinations of blood for hormones, 1659
INTERMITTENT Claudication: See Claudication
INTERN: See Internships
INTERNAL MEDICINE, otolaryngology in relation to, [Shurly] •2027
INTERNATIONAL: See also National; list of societies at end of letter S; Index to Organization Section
Association of Anatomists revisions of BNA, 1473
Committee to Combat Charlatanism, 1922
Conference on Leprosy (fourth), 284
Congress for Experimental Cytology (fifth) 1917
Congress for Protecting Children (second) 291; 1136
Congress of Dermatology and Syphilology (tenth to be in New York) 1134; (to publish atlas) 1733
Congress of Industrial Medicine (first), 722
Congress of Medicine as applied to Physical Education and Sports (first), 1137
Congress of Military Surgeons and Pharmacists, (ninth), 1292
Congress of Obstetrics and Gynecology, 1373
Congress of Public Health Officials, 1290
Congress of Radiology (fifth), 801
Congress of Therapeutic Union, 805
Congress on Gastro-Enterology (third) 48; (second) 1373; 1553
Congress on Graduate Medical Study, Berlin, 1553
Congress on Hepatic Insufficiency, 1552; 1647
Congress on Infantile Psychiatry (first) 1289
Congress on Mental Hygiene, 56
Congress on Rheumatism, 287; 1824
Cremation Congress, 1463
Laboratories, 728—BI
Medical Days, 59; 1210
Medical Week (third) 441; 1827
Organization Against Trachoma, 1051
Peace Campaign, 1918
Pediatric Congress, 39
Physiological Congress (sixteenth) 1733
Rheumatology Day, 1212
Short Wave Congress (first) 1139
Society of Gastro-Enterology, A.M.A. invites to U.S., 48
Union Against Tuberculosis (prize) 217; (tenth conference) 285
INTERNSHIPS, graduates serving, •668
hospitals approved for, •683; 715—E; 2091
requirements, medical schools and state boards, •667; 715—E
required, Italy, 1378
residencies and, •693; 715—E
rotating, in Polk County, Iowa, 1642
INTERSCAPULOVERTEBRAL SPACE (right), continuous venous murmurs, [Lian] 1587—ab
INTESTINES: See also Colon; Digestive Tract; Gastro-Intestinal Tract; Rectum
antigens, new diagnostic intradermal reaction, [Paulson & Kravetz] •1880
bacteria, salt and diarrhea, 1047—E
Disease: See Diarrhea; Gastro-Enteritis; Ileitis; Typhoid; etc.
Diverticulitis: See also Colon diverticulitis, [Abell] •1242
diverticulum, Meckel's, bleeding peptic ulcer in, [Thompson] •938
Infarct, 1464
infarct from occlusion of mesenteric vessels, [De Blasi] 242—ab
inflammation, acute phlegmonous, [Clark] 309—ab
Inflammation (regional enteritis): See Ileitis
obstruction, [Abell] •1242
obstruction from dried peach, [Andrews & Walker] •431; [Nettelrohh] 1295—C
obstruction from endometriosis of colon and rectum, [Cattell] 745—ab
obstruction from gallstones, [Cameron] 80—ab
Parasites: See also Myiasis; Oxyuriasis; Tapeworm Infestation
parasites, worms in dogs; danger to man, 455
pathology of small intestine; roentgen diagnosis, [Swaim] 1155—ab
Perforation: See Gastro-Intestinal Tract
resection, anemia after, 1467
resorption disorders from adrenal cortex disease, [Verzár] 1407—ab
strangulation, treatment, 1918
surgery, enterectomy in hepatic cirrhosis or portal obstruction, [Fuller] 1316—ab
surgery, uretero-intestinal anastomosis, (fatal) [von Mikulicz-Radecki] 321—ab; [Foley] 991—ab
trichomoniasis with mucomembranous enterocolitis, [De Muro] 1320—ab
INTHOL, 606—BI
INTOXICATION: See Alcoholism
INTRACRANIAL PRESSURE: See also Cerebrospinal Fluid, pressure
increased, hypertensive meningeal hydrops, [Davidoff] 1575—ab
increased, syndrome, [Dereux] 1493—ab
reduction with hypertonic sucrose solution, [Jackson] 1231—ab
without brain tumor, [Dandy] 1849—ab
INTRADERMAL Reaction: See Intestines antigen; Undulant Fever, diagnosis
INVENTION: See also Patents
communication and social habituation, 1774—ab
IODIDE Treatment: See Asthma; Respiratory Tract infection
IODINE, poisoning from cutaneous application, [Seymour] 463—ab
containing solutions, use in arteriography, [Bird] •1626
Test (Schiller): See Uterus cancer
Treatment: See Furunculosis; Hyperthyroidism; Nails, infection
IODIZED OIL, death after, in Sicard method of diagnosing spinal cord lesions, 1211
Injection, (transmural) in lung abscess, [Pruvost] 1858—ab
test of pancreatic function, 369
IODIZED SALT: See Goiter prevention
IODOBISMITOL: See Syphilis, treatment
IODOFORM Treatment: See Amebiasis
IONTOPHORESIS: See Rhinitis, vasomotor; Thrombophlebitis, treatment
IPRAL Sodium, Elixir, 1543
IRON: See also Steel
Ammonium Citrate: See Anemia
causative agent of Kaschin-Beck's disease, [Hiyeda] 829—ab
deficiency anemia of late infancy, [Fullerton] 171—ab
"extrinsic" factors in circulatory disorders, [Weiss & Wilkins] •787
in spinach vs. tomatoes, [Tisdall] 1760—ab; (spinach only, Council report) 1907
metabolism in early infancy, 279—E
metabolism in hemochromatosis, [Fowler] 1853—ab
reduced, antiscorbutic properties of salt of, [Pijoan] 909—ab
retention, factors influencing, 1281—E
retention, rôle of gastric acidity, [Barer] 165—ab
Treatment: See Anemia
vaporized solutions, lung reactions to, 1826
IRRIGATION, Needle: See Buraitis
ITALIAN Pharmacopeia: See Pharmacopeia
ITALINA Effervescent Salts, 2156—BI
IVEY'S Vigor-Aid, 1060—BI

J

JACKSON, CHEVALIER in Paris, (course in broncho-esophagoscopy) 1137; (hospital ward named for) 1918
JACKSON, JAMES, (1777-1867) letter to Paget, [Heindel] 1295—C
JACOBAEUS, HANS CHRISTIAN, death, 1733
JACOBI Fellowship: See Fellowship
Memorial Fund, 39
JAFFÉ'S Color Reaction: See Blood creatinine
JAILS: See Prisons; and Medicolegal Abstracts at end of letter M
"JAKE" Paralysis: See Neuritis, peripheral
JAMAICA GINGER Paralysis: See Neuritis, peripheral
JANSEN, B. C. P., coined "Aneurin" for vitamin B_1, 952
JAPAN Research Institute of Industry and Labor, 1921
JAPANESE-Chinese War: See Chinese-Japanese War
-German Medical Society founded in Tokyo, 518
Haematology: See Journals
JAQUES' Little Wonder Capsules, 1741—BI
JAQUET, ALFRED, death, 806
JAUNDICE, arsphenamine, [Graffar] 90—ab; [Soffer] 164—ab; (in spirochetosis) 152
blood serum phosphatase in, [Cantarow] 464—ab
cinchophen, bay fever and asthma during and after, [Boros] •313
diagnostic significance, [Heyd] 83—ab
effect on chronic infectious arthritis and on primary fibrositis, [Hench] 1481—ab; [Thompson] 1482—ab
epidemic benign, in children, [Popovici-Lupa] 397—ab
epidemic catarrhal, 975
hemolytic congenital, skeletal roentgen changes in, [Acuna] 1866—ab
hepatocellular, [Sprunt] •1947
pseudo-icterus not due to henna poisoning; possibly to trinitrophenol, 1146
spirochetal, 1128—E
spirochetal, agglutination test in Weil's disease, [Smith] 2106—ab
spirochetal, epidemic of Leptospira canicola, [Rose] 632—ab
spirochetal, in coal miners, dishwashers, etc., 443; 1826
spirochetal, laboratory rats as source of Weil's disease, [Korthof] 1678—ab

JAUNDICE—Continued
spirochetal, meningism in Weil's disease, [Minkenhof] 1590—ab
spirochetal, Weil's disease, [Gaines] 2168—ab
spirochetal, Weil's disease in animals, [Wirth] 997—ab
spirochetal, Weil's disease in Brisbane, [Johnson] 747—ab; (in Vienna) [Fleckseder] 2025—ab; (in India) [Das Gupta] 2105—ab
treatment, surgical, cause for high mortality, [Best] 1855—ab
Volhard's test of water elimination in, [Malamud] 995—ab
JAWS: See also Gums; Teeth
cysts (nontumorous) of maxilla, [Rosedale] 1576—ab
fractures, automobile injuries, [Straith] *940
subluxation of temporomandibular joint, sodium psylliate injection for, [Schultz] *1032
JAW-WINKING PHENOMENON, [Ascher] 1589—ab
JEWS, Hitler's persecution, (excluded from graduation), 445; (English society for persecuted scientists) 802
JOHNSON, HUGH S., radio commentator for Grove Laboratories, Inc., 716—E
JOINTS: See also Elbow; Hip Joint; Knee; etc.
Charcot's: See Tabes Dorsalis
disease, short wave therapy, [Maragliano] 833—ab
pains in serum sickness, 896
Temporomandibular: See Jaws
JONES, F. WOOD, 516
JOSLIN'S definition of diabetes mellitus, 892
JOURNALS: See also Newspapers; Index to Organization Section
American Journal of Obstetrics and Gynecology dedicated to Dr. R. T. Frank, 215
Annals of Medical History, editor, 1733
Archives internationale des brucelloses, 1648
Bulletin of the Inter-Society Committee for Radiology, 1208
Colorado Medicine to be known as Rocky Mountain Medical Journal, 1287
Diseases of the Chest, 514
files of, value of professional library depends on, 125—ab
Journal of Connecticut State Medical Society to become monthly, 716
Journal of Health and Physical Education, 362—E
Journal of Neurophysiology, 1997
Journal of Pathologic Haematology changed to Japanese Haematology, 289
Lancet, editor; death of Sir Squire Sprigge, 212—E; 367; (Morland appointed) 516
Life, fraudulent subscription agents, 514
Medicine Today and Tomorrow, 1647
Moscow Institute of Physiology monthly bulletin, 60
Research Quarterly, 362—E
Time, publisher of, H. R. Luce awarded Clement Cleveland Medal, 1644
JUDSON Daland Foundation: See Foundations
JUGULAR Vein: See Veins
JURISPRUDENCE, MEDICAL: See Medical Jurisprudence
JUSTICE OF PEACE: See Medicolegal Abstracts at end of letter M
J-W-D Blood Purifier, 1060—BI

K

K-12, toxicity, 1567
KAISER Wilhelm Gesellschaft for Advancement of Science, 1648
KALA-AZAR: See Leishmaniasis
KAOLIN Treatment: See Colitis, ulcerative; Rectum hemorrhage; Trichomonas vaginalis
KASCHIN-BECK'S Disease: See Osteo-Arthritis deformans
KASTOR Gems, 1741—BI
KAVATONE Soft Mass Pills, 2005—BI
KAY'S Ointment; Powder; Leg Oil, 1653—BI
KELLOGG'S (Dr. J. D.) Asthma Remedy, 1832—BI
KELLOGG, VERNON LYMAN, dies, 595
KENTUCKY Psychiatric Association organized, 1730
KEPHRINE, chemical formula, *2065
KERATITIS, dendritic, quinine bisulfate for, [Selinger] 308—ab
interstitial, in late prenatal syphilis, [Cole] *580
neuroparalytica, treatment, [MacMillan] 1851—ab
superficial punctate, with herpes fascialis, [Neame] 624—ab
KERATOMALACIA, treatment, red-palm oil, [Aykroyd] 1236—ab
surgical treatment of leukokeratosis of penis, [Hansen] 322—ab
KERATOSIS of external auditory canal, 2000
KER-ENE, 1060—BI
KETOGENIC Diet: See Diet; Epilepsy
KETONE, industrial hazard, [McConnell] *765
ketonic and nonketonic estrogens, [Westerfeld] 1312—ab
KETONEMIA: See Blood; Vomiting, ketonemic
KETOSIS: See also Acidosis
developed during fasting, [MacKay] 1669—ab
KETTERING Hypertherm: See Chorea
KEYSTONE nostrums, 2156—BI
KIDNEYS, calculi, late results in conservative management, [Priestley & Braasch] *1703
calculi and nephritis, 2088
calculi, mold (cephalosporium) as epiphyte on, [Oomen] 1086—ab
calculi, relation to calcium plaque formation in papilla, [Randall & others] *1698
calculi, relation to diet, case of South African Negro (Bantu), [Vermooten] *857
calculi, surgery for, [Quinby] 1939—ab
calculi, theory of origin, [Randall] 463—ab
calculi, vitamin A deficiency sign in eye, [Ezickson & Feldman] *1706
denervation of pedicle in essential hypertension, [Löwenstein] 472—ab
disease, acacia injection for, [Landis] *2030
disease (chronic), operative intervention, 2080
disease, clinical value of indicanemia, [Pinelli] 831—ab
disease, in young child, treatment, [Schlutz & Collier] *1959
dysfunction, vitamin A in urine a prognostic sign, [Boller] 1162—ab
excretion of bacteria injected in blood, [Ligas] 2107—ab
excretion of sulfanilamide, [Marshall] 2019—ab
fixation, new x-ray sign in perinephric abscess, [Mathe] 1848—ab
function of calices musculature [Hennig] 831—ab
function test, Volhard's water elimination test in jaundice, [Malamud] 995—ab
function, urea clearance test in psychosis, [Wyllie] 829—ab
functional disorder, increase in rest nitrogen during diabetic coma, [Göpfert] 1942—ab
functionless, effect of surgical drainage, [Schulhof] 1079—ab
Glomeruli: See Nephritis
Hemorrhage: See Nephritis, hemorrhagic
hepatorenal syndrome, [Pytel] 631—ab
hyperparathyroidism with Cushing's syndrome, [Pons] 1671—ab
Inflammation: See Nephritis
insufficiency, Jaffé's color reaction for creatininemia, [Popper] 915—ab
ischemia, hypertension induced by, 1640—E; 2002
lesions due to diethylene glycol (elixir of sulfanilamide), [Kesten & others] *1509; [Geiling & others] *1532
morphine effect on, 1137
movable, diagnosis; treatment, [Herbst] 1848—ab
movable, nephropexy, [Berri] 749—ab
Pelvis: See Pyelitis; Pyelography; Pyelonephritis
perirenal air insufflation to demonstrate adrenals, [Mencher] *1338
ptosis, [Mathiesen] 2110—ab
surgery, decapsulation, in nephritis and nephralgia, [Ciminata] 318—ab
surgery, exercise after nephrectomy, 2090
surgery, nephrostomy and decapsulation in anuria from cresol, [Livermore] *1528
trauma, descending pyelography in contusions, [Di Maio] 176—ab
trauma, x-ray diagnosis, [Ritvo & Stearns] *1101
tuberculosis, treatment, [Jacobs] 86—ab
tumors (malignant) in infants and children, [Campbell] *1606
KINGCO Chocolate Flavor, 587
KINNEY'S Yeast Extract, 276
KIRBY'S Miracle Mineral, 2085—BI
KITCHENS, W. D., fraudulent sales agent, 366
KLEENZIT, Shell's, industrial hazard, 1658
KLORIA, 2005—BI
KNEE: See also Patella
Chest Exercise: See Uterus retrodisplacement
ligaments, lesions, treatment, [Mandl] 243—ab
painful, only on ascending or descending stairs, [Moschcowitz] *1362
roentgen study (postero-anterior) in flexion, [Holmblad] *1196
tumor, osteogenic sarcoma after mild injury, 453
tumor, xanthoma tuberosum after trauma in tile setter, [Sugg & Stetson] *414
KNIFERS Tonic, 2005—BI
KNOPPIE Spider: See Spider
KOLMER complement fixation test, sensitivity, 134—E; (correction), [Kolmer] 522—C
Vaccine: See Poliomyelitis
KOMET, 449—BI
KOMPO Bile Salts Tablets, 2005—BI
KOPP'S Alcohol, 2085—BI
KORANYI, ALEXANDER, honored, 1202
KORSAKOFF'S SYNDROME, treatment, methenamine, [Brunerie] 748—ab
KRAUSE, FEDOR, death, 1920
von KREHL, LUDOLF, death, 370
KRISBY Krumbs, 2005—BI
KURLENE Eyelash Grower, 1832—BI
KYMOGRAPHY: See Esophagus roentgen study; Stomach, roentgen study

L

LABOR: See also Abortion; Midwives; Obstetrics; Puerperium
Anesthesia in: See Anesthesia
attendants at Negro births, 1733
complications, acetylcholine treatment of uterine inertia, [Bell] 625—ab
complications, contraction ring dystocia; use of epinephrine, [McKenzie] 164—ab
complications, posterior pituitary extracts cause uterus rupture, [Junghans] 92—ab
complications, problem in woman with heart disease and hypertension, 1746
complications, uteroplacental apoplexy, 1999
death (sudden) in, relation to barbituric analgesia [Montgomery] 163—ab
episiotomy, method of performing, 153
induced, placental infection in, [Penfold] 1236—ab
induction, oxytocic drugs, [Davis] *1633
infection during [Anderson] 87—ab
moving patient within 24 hours after, 1745
presentation, breech, [Tamis & Clahr] *196; local vs. general anesthesia in) [Urnes & Timerman] *1616
presentation, fetal postural mechanism, [Rudolph] 170—ab
roentgen pelvimetry, 1745
roentgenography by lateral pelvic exposure, [Reichenmiller] 1085—ab
Third Stage: See Placenta expulsion
LABORATORY, A. M. A.: See American Medical Association, Chemical Laboratory
Animals: See Animals
clinical, technicians, approved schools for, by A. M. A., *709; *710
division, at Indiana U., 364
International Laboratories, 728—BI
services expanded, Iowa, 961
state health department (new) Mich., 1914
state, serodiagnostic syphilis tests performed by, [Parran & others] 134—E; *425; 437—E
LAC X21B, used in lining beer cans, toxicity, 891
LaCLYDE Lemon Vegetable Soap; Lucky Bleaching Ointment, 1832—BI
LACTATION: See also Infants, feeding; Milk, human
as contraindication to digitalis therapy for mother, 731
billy goat which gives milk, 1658
LACTOBACILLUS Acidophilus: See Dysentery, bacillary; Milk, acidophilus
LACTOFLAVIN: See Riboflavin
LACTOSE Treatment: See Trichomonas vaginalis
LAKE MICHIGAN, deadline for Indiana cities to stop pollution, 1206
LAMB, Bay Shore Brand Sieved, 1201
LAMBERT'S (J. O.) Syrup, 1560—BI
LAMBLIASIS, addisonism, [Dreyfus] 1085—ab
clinical giardiasis, [Goss] 622—ab
LAMBRET, Professor, honored, 1376
LANCET: See Journals
LANDUN Corporation, carbon arc lamps, 1217
LAPAROTOMY: See Abdomen surgery
de LAPERSONNE, FELIX, death, 285; 803
LARD, hydrogenated, Clix Shortening, 1043
Puritan Brand, 1043
LAROCAINE Hydrochloride Tablets, N. N. R., 1365
LARODON 'Roche,' 209
LARSEN'S "Freshlike" Strained Cereal, 433
LARVA: See Maggots
Infestation: See Myiasis
LARYNGOLOGIST, relation to vocal teacher, [Ridpath] *545
LARYNGOLOGY, American Laryngological Association, Casselberry Prize, 719
LARYNGOTRACHEOBRONCHITIS, acute infective, epinephrine intratracheally, [Green & Miller] *1903
LARYNX, acute inflammation of hypolarynx, 2000
cancer, tomography, [Canuyt] 2107—ab
pathology of prelaryngeal gland, [Collet] 1802—ab
radiography, opaque mediums in, 2000
LATERAL SINUS Thrombosis: See Thrombosis
LATEX, used as substitute for collodion, [Narat] *655
LAURENCE-MOON-BIEDL syndrome, [Mutch] 314—ab
LAUSANNE University quadricentennial, 805
LaWALL, CHARLES H., death, 2076
LAWS: See Harrison Narcotic Act; Insurance; Legislation
LAWYERS: See Attorneys
LAXATED H-L-C, 1925—BI
LAXATIVES: See Cathartics
LEAD encephalitis in children, [Blackman] 824—ab
in colored chalks, danger to children, [Jephcott] 1488—ab
poisoning, diagnosis; treatment, 811
poisoning from cooking utensils, [Sein] 2105—ab
poisoning, hazards of contaminated fruits and vegetables, 135—E
poisoning or progressive muscular atrophy, 2089

109
37

LEAD—Continued
poisoning, quantitative estimation of lead in urine, 71
poisoning, sources in Chinese, [Yang] 911—ab
LEAGUE OF NATIONS Mixed Committee on Problem of Nutrition report, 965
world health and, 2142—E
LEE'S (L. G. C.) Herbal Compound, 2156—BI
LEECHES, Therapeutic Use: See Neuralgia, trigeminal
LEG: See Legs
LEGISLATION: See also Social Security Act; Workmen's Compensation Acts; Index to Organization Section
compulsory retirement law, (Pomaret bill) professors exempt from, France, 58
laws on industrial accidents, Italy, 1213
medical bills in U. S. Congress, 217; 363; 367; 511; 514; 596; 716; 720; 1823; 1917; 2077
on industrial diseases, France, 723; 1211
physical training and recreation bill passed, England, 218
S. 2067, bill establishing National Cancer Institute, 434—E
safeguards proposed to govern distribution of dangerous drugs, 1911—E; *1988
U.S. food and drugs, 1546—E
LEGS: See also Amputation; Ankle; Femur; Foot; Knee; Toes
fascial hernia, sodium morrhuate injection, [Schmier] *28
intermittent attacks of pains in, in children, 1928
local overgrowth, [Chandler] *1411
lymphedema, 729
muscle (supernumerary), 371
pains, cervicitis and prostatitis as cause of, 2087
sensation in, changes after head injury, 609
ulcer (chronic), 1220
LEISHMANIA, cultivation in goat's milk, [Laurinsich] 1860—ab
LEISHMANIASIS treatment, antimony stable solution, [Napier] 1584—ab
LEMON juice, (Hulburt's Brand), 587; (Valora Brand) 1815
LENINGRAD Institute of Roentgenolgy, Radiology and Cancer, 60
LENS, CRYSTALLINE, vacuoles in, a form of cataract, 1744
LENSES: See Glasses
LEON Bernard Foundation: See Foundations
LEOPOLDINE Academy, 250th anniversary, 518
LEPEL SWP Portable Short Wave Diathermy Machine, 1364
LEPROSY, campaign, French Colonies, 1375
colony for, Brazil, 147
environmental factors in, 1373
International Conference on (fourth), 284
McCoy (George W.) studies, 285
nodes, methylene blue staining, 291; 1920
reticulo-endothelial system in, 2153
treatment, tellurium, [Marchoux] 912—ab
LEPTOMENINGITIS: See Meningitis
LEPTOSPIRA Canicola: See Jaundice, spirochetal
LEPTOSPIROSIS: See Spirochetosis
LESLIE Brand Hawaiian Pineapple Juice, 587
LEUKEMIA, anemia in, [Beltrametti] 176—ab
blood of patient, use in treating agranulocytosis, [Bock] 2108—ab
blood picture in fibrosis of marrow, [Mettier] 307—ab
complications, bronchopneumonia, inflammatory reactions of lung, [Dreyfuss] 2107—ab
diagnosis, bone marrow changes in, [Weller] 1315—ab
genetics in man, [Ardashnikov] 173—ab
lymphatic, herpes zoster in, [Scheinker] 916—ab
lymphatic, treatment, 1217
lymphatic, with pertussis, [Levy] 537—ab
lymphocytic, with advanced tuberculosis, [Ryan] 1073—ab
lymphosarcoma cell, [Isaacs] 1937—ab
meningism in, [Minkenhof] 1590—ab
monocytic, [Montgomery] 743—ab
monocytic chronic, [Smith] 910—ab
monocytic, skin symptoms, [Sanicandro] 629—ab
myeloblastic, acute, after malaria therapy, [Adelheim] 471—ab
myelogenous chronic, arsenic poisoning in, [Kandel] 2168—ab
myelogenous chronic, in machinery oilers, 1376
myelogenous chronic, potassium arsenite plus roentgen therapy, [Stephens] 741—ab
myelogenous, saliva cell count in, [Allen] 905—ab
myelosis (early) and remission in, [Penati] 913—ab
skin manifestations in, [Gaté] 395—ab
transmissible, in mice with atypical cells, [Barnes] 307—ab
treatment, radium, [Parsons] 1404—ab
tumor-like growth in, [Fleischhacker] 321—ab
LEUKOCIDIN, typhoid, 280—E
LEUKOCYTES count, extreme leukocytosis in whooping cough, [Pearson] 1159—ab
count (filament-nonfilament) in arthritis, [Stein-Brocker & Hartung] 606—C
count, 'leukopenic index' during gastric analysis, [Long] *23
LEUKOCYTES—Continued
count, leukopenic index in food allergy, [Denny] 622—ab; 2006
count (Shilling) vs. sedimentation rate in rheumatic infection, 878—E
count, serum proteins in leukopenia, [Bing] 1086—ab
Edwenil effect on, [Stainsby & Shultz] *273; 280—E
modified by mercury, arsphenamine and bismuth in syphilis, [de Lillo] 90—ab
neutrophilic granulocytes, effect of typhoid leukocidin, 280—E
picture changes in swimming, [Kellner] 1677—ab
LEUKOKERATOSIS: See Keratosis
LEUKOPENIA: See Leukocytes count
Toxic: See Angina, agranulocytic
LEUKOPENIC INDEX: See Leukocytes count
LEUKORRHEA, 2007
in young girls, 1728—E
LEUKOTOMY: See Brain surgery
LEWIS, J. HAMILTON, 32—E; 436—E
LIBBY'S Hawaiian Pineapple, 1043; 1815
LIBRARY: See also Journals
booked for a fall, 785—ab
habit, 1702—ab
of Jackson County Medical Society, 25th anniversary, 1643
of Medical Society of County of Kings and Brooklyn Academy, annual report, 54
of University of California given Dr. Brigham's library, 137
of University of Illinois receives gifts from Dr. Pusey and Dr. Hertzler, 1641
package library service, Indiana, 1642
Rudolph Matas Medical Library at Tulane, 2074
value depends on files, 125—ab
LICE, Infestation with: See Pediculosis
LICENSURE: See also State Boards
Annual Congress on, 1913
bill to prohibit illegal practice, France, 57
federal, proposed, 32—E; 436—E
Jews automatically excluded from doctor's degree, Germany, 445
license of Dr. R. W. Debusk lost, 440
medical board overruled by court in registering foreigner, Australia, 1056
of Automobile Drivers: See Automobiles
of graduates of foreign faculties, 1930-1936, *675
LIDS: See Eyelids
LIFE: See Journals
LIFE Duration: See Longevity: Old Age
earnings, estimate of, 284
Insurance: See Insurance
what havoc we make of our chances, 856—ab
LIFESTAFF Natural Grain, 1637
LIGAMENTS, hypertrophy of ligamenta flava, [Spurling & others] *928
inguinal, length of, in differentiating inguinal hernia, [Harris & White] *1900
of knee joint, lesions, treatment, [Mandl] 243—ab
uterosacral, endometrial cyst of (rare), [Israel] *574
LIGHT, sensitivity of eye to colored street light, testing, 442
measuring daylight in rooms, apparatus for, 442
Protection Against: See Ultraviolet Rays
sensitivity and sulfanilamide, [Frank] *1011; [Newman & Sharlit] *1036; [Grosjean] 1382—C
sensitivity in dermatoses, [Stokes] 2018—ab
sensitivity, rôle in dermatitis caused by gas plant [Cummer & Dexter] *495
sensitizing substances and skin tumors, [Büngeler] 1321—ab
LIGHTING, for dormitories, 609
for operating room, 1064
for schoolroom, [Jackson] *841
LINDBERGH apparatus, culture method for viscera in; 1210
LINNAEUS, Carl von Linné, 1473
LIP: See Lips
LIPEMIA: See Blood fats
LIPIDOSE research in neuropathology, [Van Bogaert] 175—ab
LIPOID pneumonia and oil in lungs, 1367—E
LIPOIDOSIS, phosphatide, [Lignac] 998—ab
LIPOMA, cause of neck enlargement, 1386
episacroiliac, [Ries] 1756—ab
LIPS, cancer and cutaneous irritation in U.S. Navy, [Peller] 1486—ab
cancer (triple primary) [Drooker] *1180
frenum of upper, 974; 977
LIPSTICKS: See Cosmetics
LIQUOR: See Alcohol; Wine
LITERATURE: See Journals; Library; Newspapers
LITTAUER (Lucius N.) Institute for Speech Disorders, 513
LIVER, abscess (multiple), from perforating duodenal ulcer, [Roberts & Hadler] *1629
amebic abscess, [Young] 991—ab
as commissariat of body, [Mann] 1311—ab
Bay Shore Brand Sieved Liver, 1201
cancer, intrahepatic hemorrhage in, [Loeper] 912—ab
cirrhosis, ascites in, relation to menstrual function, [Hartwell & Johnson] *1800
LIVER—Continued
cirrhosis, diagnosis and treatment in early stages, [Sprunt] *1945
cirrhosis (hypertrophic), splenectomy for, 1053
cirrhosis (latent), after traumatic diaphragm rupture, [Goodman] *1980
cirrhosis, sequels of splenectomy in, [Bergeret] 830—ab
cirrhosis, tuberculous splenomegaly, and Banti's disease, [Fittipaldi] 1084—ab
cirrhosis, with ascites, enterectomy in, [Fuller] 1316—ab
craving for, in pernicious anemia, 1566
deaths, [DeCourcy] 618—ab
diseases, lipids in blood, [Campana] 1084—ab
disorders, viscosity of blood serum vs. albumin globulin quotient and Takata test, [Kaunitz] 1767—ab
dysfunction, prognosis, vitamin A in urine, [Boller] 1162—ab
echinococcus, 443
Enlargement: See also Liver cirrhosis; Pick's Syndrome
enlargement, eosinophilia with, [Thomson] 910—ab
Extract-Armour, 2141
extract (parenteral) in pneumonia, [Wilson] 389—ab
extract treatment of chronic agranulocytosis, [Das Gupta] 747—ab
extract, Vials Chappel Liver Extract (Subcutaneous) 10 cc, 1365
function and dioxyacetone during pregnancy, [Dietel] 1944—ab
function and vitamin D, 2073—E
function in anesthesia, [Gagliardi] 1859—ab
function in hyperthyroidism, [Maddock & others] *2131
function test, bilirubin, 1746
function test (hippuric acid) in hyperthyroidism, [Bartels] 621—ab
function test in tuberculosis, [Balanescu] 320—ab
glycogen in hyperthyroidism, effect of yeast on, [Drill] 1853—ab
hematopoiesis (normal), [Bertelsen] 244—ab
hepatorenal syndrome, [Pytel] 631—ab
in chronic acetophenetidin intoxication, [Espersen] 2026—ab
inflammation, after *di*nitrophenol, 731
inflammation (benign) of early syphilis, [Waugh] 1487—ab
insufficiency in colitis, [Binet] 241—ab
insufficiency, International Congress on, 1552; 1647
involvement in exophthalmic goiter, [Retzlaff] 1409—ab
iron storage in, questioned, 279—E
nicotinic acid amide from, cures pellagra, 1203—E; [Smith] *2054; 2086—C; [Funk] 2086—C
Oil: See also Cod Liver Oil
oil, Burbot, 29
rehabilitation in primary suppurative cholangeitis, [Bassler] *864
soup, Stokely's Strained, 133
traumatic rupture, mortality, prognosis, 976
Treatment: See Anemia; Liver extract
vitamin A reserves in, 590—E
vitamin B_1 and fatty livers, [McHenry] 173 ab
vitamin B_6, new essential dietary factor in, [Halliday] 907—ab
LOBELINE sulfate: pharmacology, [Wright & Littauer] *649
LOBSTEIN'S Disease: See Osteopsathyrosis
LOCOMOTOR Ataxia: See Tabes Dorsalis
LODGE Contract Practice: See Index to Organization Section
LONDON County Council plan for juvenile rheumatism, [Cove-Smith] 316—ab
LONGEVITY: See also Life duration; Old Age
in coronary disease in early life and all ages, [Glendy & others] *1777
LOPES, MARIA DA CONCEICAO, honor memory, 1466
LORENZ, ALBERT, opinion on American orthopedics, 361—E
LOUISIANA Society for Mental Hygiene organized, 213
State Medical center, 881
LOUPING ILL in human subjects, [Wiebel] 92—ab
LUBROL, 2005—BI
LUCE, HENRY R., publisher of *Time* receives cancer medal, 1644
LUCOROL, 1741-BI
LUMBAR Lesion: See Spine
Puncture: See Spinal Puncture
LUNGS: See also Pleura; Respiratory Tract
abscess, guaiacol intravenously for, [Nammack & Tiber] *330
abscess, myelogram and peripheral blood modified in, [Bertola] 1238—ab
abscess, transmural, iodized oil, injection of, in, [Pruvost] 1858—ab
Apicolysis: See Tuberculosis, Pulmonary
Asbestos body in: See Pneumoconiosis
cancer and tarred road dust, [Campbell] 624—ab
cancer, noncancerous consolidations in, 443
cancer, paraffin embedding of sputum in diagnosis, [Mosto] 542—ab

LUNGS—Continued
cancer, primary bronchogenic, (Mattlick & Burke) *2121
capacity of, to regulate water content of blood, [Fröhlich] 93—ab
Cavities: See Tuberculosis, Pulmonary, cavities
changes after irradiating extrathoracic tumors, [Hsieh] 822—ab
changes in influenza, [Scadding] 2170—ab
changes in malta fever, [Lafferty] 967—ab
collapse (atelectasis) in influenza, [Snow & Cassassa] *1886
collapse (rare form) in pneumothorax, [Abdulkadir-Lutfi] 631—ab
conditions, chronic nontuberculous, [O'Brien] 2170—ab
cysts (air), diagnosis, [Huber] 89—ab
diagnosis (pediatric), 378
Diseases: See also Influenza; Pneumoconiosis; Pneumonia
disease, cedar poisoning predispose, 1744
experimental overinflation, pneumothorax from, 959—E; [Macklin] 1470—C
Hemoptysis: See Tuberculosis, Pulmonary
hemorrhage, acacia injection in, [Berghausen] 1074—ab
hemorrhage, rarer causes, 146
infarct, postoperative, 1464
inflammatory reaction in bronchopneumonia complicating leukemia, (Dreyfuss) 2107—ab
lesions obscure, radiologic interpretation, [McDougall] 911—ab
oil in, and lipoid pneumonia, 1367—E
palms in splanchnicotomies, [Leriche] 748—ab
parenchyma, modifications after sympathectomy, [Biasini] 469—ab
pathology in silicosis, [Matz] 1233—ab
reactions to vaporized solutions, 1826
rest of, effect of lateral position in normal adult, [Vaccarezza] 1765—ab
roentgen aspects of interlobar fissures, [Roubier] 1319—ab
roentgen shadows (marginal) in lamellar pleurisy in infants, [Miglior] 90—ab
surgery, bilateral trilobectomy, [Overholt] *1127
Tuberculosis: See Tuberculosis, Pulmonary
Vital Capacity: See Vital Capacity
water exchange in, in decompensated heart disease, [Calabresi] 1494—ab
LUPINUS albus seeds, action on glycemia, [Frannini] 1238—ab
LUPUS: See also Skin tuberculosis
erythematosus, form of thrombocytopenic purpura, [Kell] 546—ab
fight against, Germany, 1849
pernio of Besnier-Tenneson type, 291
vulgaris, electrocoagulation plus other local therapy, [Genner] 2110—ab
vulgaris, phenyl-ethyl hydnocarpate for, [Wallace] 625—ab
LUR-EYE Lash Developer, 2005—BI
LYCOPODIUM granuloma from anal suppositories, [Antopol & Robbins] *1192
LYGEL, 1741—BI
LYMPH, absorption in peritonitis, effect of anesthetics on, [Mengle] 166—ab
LYMPHATIC LEUKEMIA: See Leukemia
LYMPHATIC SYSTEM, adenitis in childhood, [Brück] 1315—ab
giant cells in tissues, preceding measles, 1047—E
mesenteric lymphadenitis, [Herxe] 1766—ab
node as source of neutralizing principle for vaccinia, [McMaster] 744—ab
node involvement, operative treatment in cancer of cervix, 599
prelaryngeal gland pathology, [Collet] 1082—ab
tuberculous cervical lymphadenitis, [Reid] 2022—ab; [Thompson] 2105—ab
tuberculous tracheobronchial adenopathy, [Roubier] 1166—ab
LYMPHEDEMA: See Elephantiasis
LYMPHOCYTES: See Leukemia, lymphocytic; Meningitis, lymphocytic
LYMPHOGRANULOMA, malignant, roentgen treatment, [Frimman-Dahl] 1944—ab
LYMPHOGRANULOMA VENEREUM, [Chapman] 826—ab; 876—E
anorectal stricture in, [Redell] 2026—ab
blood serum proteins in, [Jersild] 1862—ab
epidemiology, Dr. Sven Hellerstrom requests data, 1296
treatment, roentgen, [Guarini] 749—ab
virus, diagnostic intradermal reaction, [Paulson & Kravetz] *1380
LYMPHOSARCOMA cell leukemia, [Isaacs] 1937—ab

M

MACARONI, Foulds, 1637
McCLELLAN'S Orthosol, 1653—BI
MACHETA Cobra Venom Treatment: See Paralysis agitans
McLEAN'S (Dr. J. H.) Universal Liver Pills, 1925—BI
MacMARR Brand Evaporated Milk, 1455
McNESS' Sarsaparilla and Burdock Compound, 1741—BI
MAGGOTS Infestation: See Myiasis
therapy, bone regeneration after, [Simon] 1758—ab
MAGGOTS—Continued
therapy in infected wound in hemophilia, [Pohle & Maddock] *2055
MAGNESIUM alloy bone splints, report on, 967
oxide to remove fluoride from water, [Elvove] 1581—ab
Sulfate Treatment: See Eclampsia
trisilicate, neutralization of hydrochloric acid by, [Mann] 172—ab
MAJESTIC Portable Surgical Unit, 1042
Ultra Short Wave Unit, 586
MALARIA, all union antimalaria conference, U.S.S.R., 59
chronic, epinephrine for, 290
control, British possessions, 516
immunity (passive) in, 1547—E
plasmodia, penetration into reticulocytes, [Eaton] 629—ab
project of Rockefeller Foundation approved, Florida, 969
quartan, prontosil in, [Van der Wielen] 398—ab
study course, Florida, 880
therapeutic, acute myeloblastic leukemia after, [Adelheim] 471—ab
therapeutic, in progressive muscular dystrophy, [Rottmann] 752—ab
treatment, atabrine, psychosis after, 812
treatment, atabrine-musonate, in children, [De] 625—ab
treatment, atabrine-plasmochin, fatality after, [Decorel] 74—ab
treatment, sulfanilamide, [Díaz de León] 1940—ab
tropical, clinical course, [Tarnogradskiy] 544—ab
MALE Sex Hormones: See Androgens
MALIGNANCIES: See Cancer; Sarcoma; Tumors, malignant
MALINGERING: See also Dermatitis, factitious
possible, case of, liver of unknown origin, 453
MALNUTRITION: See Nutrition
MALPRACTICE: See Medicolegal Abstracts at end of letter M
MALTA FEVER: See Undulant Fever
MALVITOSE, 1741—BI
MAN, "glass man," exhibit from German Museum of Hygiene, 445
MANGANESE, Ammonium: See Pyuria
MANDELIC Acid: See Acid
MANICURE: See Nails
MANTOUX TEST, use in children under 8, 1144
tuberculin ointment patch test substitute for, [Wolff & Hurwitz] *2042
MAPHARSEN Treatment: See Syphilis, early
MARBLE BONES: See Osteosclerosis fragilis
MARIHUANA: See "Cannabis" in Index to Organization Section
MARINESCU, Professor, celebration, 1292
MARKLE FOUNDATION: See Foundations
MARLEO Ointment, 1653—BI
MARRIAGE: See also Coitus; Divorce
decrease, France, 145
epilepsy (possible diagnosis) and, 1219
license law (new), Illinois, 52; (use Kahn instead of Wassermann) 511
number of births to, [Cadwallader] 150—C
objection to wife being older than husband, 1931
physical examination of applicants, Michigan, 1049
syphilis (prenatal) patients marry? [Cole] *2584
tuberculous patients marry? 1557
MARRIOTT Memorial Pediatric Fund, 1132
MARTIN, A. C., "divine healer" fined, 799
MARTIN, LOUIS, honored, 145
MARTYRS: See also Heroes
Davis (J. C. B.), slayer of, sentenced to hang, 439
Lopes (Maria da Conceicao), 1466
Noguchi and Young, 217
MASKS and Isolation in colds, 1286
gas, distribution, England, 1932; (for babies) 1918
MASONS, Scottish Rite, A. M. A. resolution on psychiatric research by, 41
MASSAGE: See also Masseurs
cream, tuberculous gland cysts from, 453
MASSEURS, regulation, Belgium, 1466
MASTIN'S Vitamon Tablets, 449—BI
MASTITIS: See Breast inflammation
MASTOID, fracture of skull involving, [Coleman] *1613
infections direct vs. intermediate pathways, [Hadjopoulos] 536—ab
suppurations of pyramidal cells, 804
MASTOIDECTOMY, ageusia after, [Ho] 1232—ab
MASTOIDITIS, pneumococcus, vaccination against intracranial complications after, [Cameron & Hoskins] *1254
treatment of blood stream infections from, [Fenton] 536—ab
MASTURBATION in women, 1564
MATERNAL, mortality and morbidity in breech delivery, [Urses & Timerman] *1617
mortality, 2078
mortality, home vs. hospital, Germany, 1212
mortality vs. antepartum care, [Tamis & Clahr] *195
premiums, France, 885
MATERNAL—Continued
welfare, (grants under Social Security act) 879—E; (program, N. J.) 881; ("better care" conference) 1997
MAXILLA: See Jaws
MAX-I-MUM Brand Evaporated Milk, 1455
MAYO Foundation: See Foundations
MEASLES, diagnosis, otitic phenomenon, [Bespaloff] 748—ab
etiology, microscopic inquiry, [Coles] 992—ab
German: See Rubella
inclusion bodies in, [Broadhurst] 1759—ab
prevention and treatment (adult serum, convalescent serum or placental extract) 1817—E; [McKhann] *2034
prodromal stage, giant cells in lymphatic tissues, 1047—E
visceral pathology, [Degen] 742—ab
MEAT: See also Beef; Liver
cold, intestinal myiasis from Sarcophaga larva on, [Bryan] *573
contaminated with poison gases, consumption, 1291
extracts as gastric stimulants, [Boon] 1583—ab
handlers, hand infections in, 975
handlers, "Q" fever in, Brisbane, [Derrick] 1586—ab
MECHOLYL: See Acetyl-Beta-Methylcholine
MECKEL'S Diverticulum: See Intestines
MEDALS: See Prizes
MEDIASTINOPERICARDITIS: See Pick's Syndrome
MEDIASTINUM, roentgen study by perirenal insufflation of air, [Mencher] *1340
tumors, differential diagnosis, 1463
MEDICAL ASSOCIATIONS: See also Societies, Medical; and list of societies at end of letter S
of Georgia, public relations bureau, 961
MEDICAL BUREAU of Pittsburgh, (correction) 140
MEDICAL CENTER: See also Health center
for rural physicians, Bingham's gift, Mass., 717
MEDICAL COLLEGE: See Schools, Medical
"MEDICAL DAY," Kansas City, Mo., 1133
MEDICAL DIATHERMY: See Diathermy
MEDICAL ECONOMICS: See Economics, Medical
MEDICAL EDUCATION: See Education, Medical
MEDICAL EMERGENCY RELIEF: See Emergency Relief
MEDICAL EXAMINATION: See Physical Examination
MEDICAL EXAMINER: See Coroner
MEDICAL FOUNDATION of Mount Valerian: See Foundations
MEDICAL INSPECTION: See Schools
MEDICAL JOURNALS: See Journals
MEDICAL JURISPRUDENCE: See also Medicolegal Abstracts at end of letter M; Index to Organization Section
can heat produce fracture of skull and hemorrhage after death? 525
court claims for dermatitis from clothing, 296
court decides pledges hospital must be paid, 883
court overrules medical board in refusing to register, Australia, 1056
criminal, psychiatric element in, 1057
damages for puerperal fever, 803
determining time of death, [Mueller] 750—ab
New Jersey supreme court upholds Plager's blood pressure business, 512
protest judicial confiscation of patient's record, Brussels, 603
responsibility in industrial medicine, 219
swelling and discoloration not signs of death from freezing, 1299
tests for mercury poisoning by ingestion; minimum lethal dose, 811
MEDICAL LIBRARY: See Library
MEDICAL MINSTRELS of 1937, 439
MEDICAL PATENTS: See Patents
MEDICAL PRACTICE ACTS: See Medicolegal Abstracts at end of letter M
MEDICAL PROFESSION: See Physicians; Surgeons
MEDICAL RESEARCH Council, (promotes clinical research) 441; (action of radiation) 1052
Institute established by auto workers, Detroit, 717
MEDICAL SCHOOLS: See Schools, Medical
MEDICAL SERVICE: See also Health; Hospitals; Medicolegal Abstracts at end of letter M; Index to Organization Section
committee to study sickness care, Wis., 1996
Federalization: See Medicine, state
for indigent and A. M. A., 32—E; 436—E; 1047—E
for indigent, new polyclinic, Rio de Janeiro, 148
free, abuse in public hospitals, Paris, 144; 885
free, to all, New Zealand, 1290
of prisons, Institute of Medicine of Chicago survey, 1548
State: See Medicine, state
to ships at sea, radiomedical center closed, Italy, 1379
what is involved in adequate care, [Welskotten & Bailey] *2136; 2144—E

MEDICAL SOCIETY: See also Societies, Medical, and list of societies at end of letter S of County of Kings, library report, 54 of North Carolina opposes federal control of practice, 719
MEDICAL STATISTICS: See Statistics; Vital Statistics
MEDICAL STUDENTS: See Students, Medical
MEDICAL SUPPLIES, domestic, encourage use, Japan, 2154
MEDICAL SYNDICATE recommends higher fees, France, 369
MEDICAL WEEK, annual, Budapest, 1829
international, in Switzerland, 441; 1827
MEDICINE: See also Economics, Medical; Education, Medical; Medical Service; Physicians; Surgeons; Surgery; etc.; Index to Organization Section
Academy: See Medicine
ancient "school" of: "methodist," 1567
Aviation: See Aviation
colonial, problems in French colonies, 1375
Cults: See Cults
exhibits, etc., at Paris exposition, 286
Forensic: See Medical Jurisprudence
future, [Musser] •323
general, and otolaryngology, [Shurly] •2027
history, murals at Washington fair, 719
history of fight against disease, 2081
In Russia: See Russia
Industrial: See Industrial
Internal: See Internal Medicine
International Congress of, as applied to Physical Education (first), 1137
Medicine Today and Tomorrow: See Journals
Military: See Military
organized, care of indigent sick, 1047—E
Practice: See also Physicians, practicing
practice, future in New Zealand, 1290
practice portrayed in Cronin's THE CITADEL, 956—E
practice, valuable experience on island of summer vacationists, 1191—ab
Preventive: See Preventive
Profession of: See Physicians; Surgeons; etc.
progress, Budapest Royal Medical Society centenary, 1292
Regimentation: See Medicine, state
relation to public and British Medical Association, 1553
social, chair of, established at Faculte de medecine, 1289; (Crouzon first occupant) 1648
social, specialists in, France, 723
socialized, decreases number of new students, Vienna, 1465
SOCIALIZED MEDICINE IN THE SOVIET UNION by H. E. Sigerist, 1911—E
Specialization in: See Specialization
state, and the physician, Italy, 1213
state, beginnings, Australia, 1055
state, federal regimentation, 32—E; 436—E; (Florida protests against) 511; (North Carolina protests against) 719; (American Foundation proposals) 1280—E; (petitions to medical societies and A. M. A.) 1728—E; 1816—E
state, New Zealand, 1290; (doctors to receive 1£ per head annually) 1291
surgery and, tend to converge, 1111—ab
warfare (future) and, 1646
MEDICOLEGAL: See Medical Jurisprudence; Medicolegal Abstracts at end of letter M
MEES'S Stripes: See Nails
MEGALOCOLON: See Colon
MEHARRY Medical College, Council action on, 156
MEIGS'S Syndrome: See Hydrothorax
MEINICKE'S Reaction: See Syphilis, serodiagnosis; Tuberculosis, serodiagnosis
MEK, used in lining beer cans, toxicity, 891
MELANCHOLIA: Mental Depression
involutional, estrogen therapy, (Progynon and Progynon-B) [Suckle] •203; (theelin) [Schulze] 1312—ab; [Ault & others] •1786
MELANOMA, histogenesis, [Maggio] 1675—ab
MELATOL, 2085—BI
MELENA neonatorum, diarrhea complicating, raw apple for, [Corcoran] 166—ab
MEMBRANES: See also Fetus membranes; Mucous Membranes (cross reference); Shrapnell's Membrane
bucconasal (persistent) in new-born, [Lemere] •247
MÉNIÈRE'S Disease: See Vertigo, aural
MENINGES, arachnoiditis (chronic) obliterating spinal subarachnoid space, [Barker & Ford] •785
hemorrhage, posttraumatic juxtadural, [Krebs] 994—ab
hemorrhage of new-born, [Rivière] 1160—ab
hemorrhage, spontaneous subarachnoid, [McDonald] 466—ab; (prognosis) [Strauss] 1075—ab
hypertensive hydrops, [Davidoff] 1575—ab
infection (epidural), [Browder] 617—ab
Tuberculosis: See Meningitis, tuberculous
MENINGITIS: See also Choriomeningitis; Meningo-Encephalitis
epidemic, Alaska, 514
epidemic, diphtheria sheep serum for, 804
experimental, [Branham] 1234—ab
in leukemia and in Weil's disease, [Minkenhof] 1590—ab
MENINGITIS—Continued
low leptomeningitides in cauda equina syndrome, [Devic] 2172—ab
lymphocytic, chronic arachnoiditis obliterating spinal subarachnoid space after, [Barker & Ford] •785
meningococcic, acute hemolytic anemia during, [Harvey & Janeway] •12
meningococcic, complicating septicemia, [Ravitch & Washington] •1122
meningococcic, epidemic, U.S., 1990—E
meningococcic, second attack, recovery after, [Schaffer] 825—ab
pneumococcic (primary), [McDonald] 1854—ab
pneumococcic, prontosil soluble intrathecally in, [Millett] •2138
sequels (ocular and aural), prevention, [Eagleton] 825—ab
serous, in swincherds, [Fatzer] 1083—ab
streptococcus, 590—E
treatment, sulfanilamide, [Harvey & Janeway] •12; [Martin] 1675—ab
tuberculous, clinical aspects, [Schlapobersky] 1329—ab
tuberculous, etiology, [Nobécourt] 1083—ab
tuberculous, tryptophan reaction, [Pongratz] 328—ab; [Baxter] 1762—ab
vaccination against, after mastoiditis, [Goldman & Herschberger] •1254
MENINGOCOCCUS antiserum, protection lacking, [Branham] 1235—ab
infection (masked), [Kümmerling] 630—ab
infection, sulfanilamide plus serum therapy, [Branham] 312—ab
Meningitis: See Meningitis
septicemia, complications, [Ravitch & Washington] •1122
strains, in U.S., 1990—E
MENINGO-ENCEPHALITIS and rubella, [Read] •654
tularemic pneumonia with, [Winter & others] •258
MENOPAUSE, age in women with breast cancer, [Olch] 903—ab
Artificial: See also Castration
bleeding after, [TeLinde] 828—ab
complications, arthritis, 1209
complications, involutional melancholia, estrogens for, [Suckle] •203; [Ault & others] •1786
complications, vaginitis, endocrine treatment, [Lewis & Adler] •1873
drugs used to shorten, 300
pregnancy after, cases, 528
syndrome, endocrine treatment, [Pratt & Thomas] •1875
syndrome, irradiate pituitary, [Zollinger] 1157—ab
treatment, 295
MENORRHAGIA: See Menstruation disorders
MENSTRUATION: See also Menopause
after irradiation and ovarian tumor, 1836
allergy, [Slinger] 1677—ab
asthma preceding, 893
blood sugar, [Auerbach] 1493—ab
deficient, ovary irradiation in small doses, [Robecchi] 318—ab
Disorders: See also Amenorrhea; Dysmenorrhea
disorders caused by granulosa cell tumors, [von Pallos] 397—ab
disorders, menorrhagia, [Schulze] 1075—ab
disorders, menorrhagia and metrorrhagia, endocrine products for, [Burch & others] •1869
effect on gonorrhea diagnosis, [Puglisi] 2172—ab
fistulas (transtubal), [Maliphant] 820—ab
function, relation to ascites in juvenile liver cirrhosis, [Hartwell & Johnson] •1800
hemoptysis, [Sattler] 2025—ab
inhibited by testosterone propionate, [Zuckermann] 557—ab
pain and gonorrhea cure, 1837
periodicity, [Gunn] 1941—ab
purpura, [Smith] 1760—ab
tampons cause cervicitis? 381
MENTALITY: See Intelligence
MENTAL DEFECTIVES, care of, New York City ends, 799
diffuse white matter gliosis in, [Meyer] 1492—ab
fertility of parents of feebleminded, Switzerland, 805
phenylpyruvic oligophrenia, [Jervis] 2098—ab
premature birth, [Brander] 322—ab
MENTAL DEPRESSION: See also Melancholia
treatment, benzedrine sulfate, [Wilbur & others] •549, (Council report) •2064
MENTAL DISEASE: See also Dementia Praecox; Hospitals, psychiatric; Insanity; Psychosis
care of patients, (Michigan) 593; (laws revised, Austria) 1465
etiology, atropine or novatropine given after insulin, [Quigley] •1363; [Quinlan] 2066—C
etiology, bromide poisoning, [Cheavens] 1582—ab
experimental catatonia from typhoid bacillus toxin, [Milella] 1237—ab
MENTAL DISEASE—Continued
heredity and neuropathic constitution, committee report, 1991—E
metabolism disorders and, 371
suicide in relation to, 796—E
treatment, theelin, [Ault & others] •1786
MENTAL HOSPITALS: See Hospitals, psychiatric
MENTAL HYGIENE, International Congress on, 56
Louisiana Society, organized, 213
MENTOS, 2156—BI
MERCUPURIN: See Diuresis
MERCURIN, action of, [Herrmann] 167—ab
N. N. R., 133
MERCUROUS CHLORIDE: See Mercury
MERCURY diuretics, 2007
leukocytes modified by, [de Lilio] 90—ab
mercurous chloride, use in lactating mother, effect on child, 67
poisoning by ingestion, tests for; minimum lethal dose, 811
treatment of scalp, hair discolored after permanent wave, [Siemens] 92—ab
MERSALYL: See Diuresis
MESENTERIC Lymphadenitis: See Lymphatic System
MESENTERY, ganglioneurofibromatosis with malignant degeneration, [Jentzer] 541—ab
METABOLISM: See also Amino Acids; Carbohydrates; Cholesterol; Iron; Uric Acid; etc.
basal, action of coffee on, 1466
basal, effect of depth and type of respiration, 1138
basal, fatigue with low rate, 811
basal, of children vs. nutrition, [Maroney] 741—ab
basal, of 106 healthy girls, Boston, 715—E
disorders and psychosis, 371
effect of exercise, [Haldi] 1579—ab
effect of milk, 968
in generalized fibrous osteodystrophy, [Brunner] 92—ab
liver as commissariat of body [Mann] 1311—ab
migraine and, [Franck] 1767—ab
rôle in rickets, [Gubner] 238—ab
METAL Plating: See also Chromium; Copper plating, skin infection from, 1064
salts, prolong action of posterior pituitary solution, [Dodds] 1318—ab
salts, relation to x-ray skin, 1146
METHANE, mine gases, effects, 975
METHANOL, industrial hazards, [McConnell] •764
METHEMOGLOBINEMIA after sulfanilamide, [Paton] 316—ab; (use of methylene blue) [Wendel] 1216—C
METHENAMINE as urinary antiseptic, [Walther] •1000
Treatment: See Korsakoff's Syndrome
METHODIST, ancient "school" of medicine, 1567
METHYL CHLORIDE poisoning, 2008
METHYL ROSANILINE: See Burns, treatment
METHYL SALICYLATE, remove adhesive tape with oil of wintergreen, [Jackson & Jackson] 294—C
METHYL-BUTYL-KETONE, industrial hazard, [McConnell] •765
METHYLENE BLUE: See Methylthionine Chloride
METHYL-ETHYL-KETONE, toxicity of, used in lining beer cans, 891
METHYL-PROPYL KETONE, industrial hazard, [McConnell] •765
METHYLTHIONINE CHLORIDE, as urinary antiseptic, [Walther] •1000
Injection to stain leprosy nodes and tubercle bacilli, 291; 1920
Treatment: See Methemoglobinemia
METRAZOL, Therapeutic Convulsions: See Dementia Praecox
METRORRHAGIA: See Menstruation disorders
MEYENBERG Evaporated Goat Milk, 1815
MICHAEL'S C. P. Tablets, 606—BI
MICHELI, FERDINANDO, death, 519
MICROCEPHALY, 893
MICROSAN Mosene, 1060—BI
MICROSCOPES, fluorescence, of viruses, [Hagenau] 243—ab
representation of surfaces of living organs, [Slinger] 226—C
MICTURITION: See Urination
MIDOL, 2157—BI
MIDWIVES, at Negro births, 1733
legal regulation, France, 1922
MIGRAINE: See also Headache
diagnosis (differential), 450
metabolism and, [Franck] 1767—ab
syndrome, [von Storch] 1233—ab
treatment, 67
treatment, carbohydrate limitation, [Porges] 328—ab
treatment, ergotamine tartrate, 450; (reply) [Von Storch] 977
treatment in women by testis oxidation ferments, [Zajicek] 94—ab
MILAM Herb Compound, 2156—BI
MILAN University, baincary donated to, 2152
MILITARY Hospitals: See Hospitals
Surgeons, ninth International Congress, 1292
Surgeons of the United States, Association, 882

V 1
193

109
37

MILK, Acidified: See Infants, feeding
acidophilus method of diagnosis in bacillary dysentery, [Silverman] *1024
allergy and psychic aversion, 376
borne typhoid, 1207
cevitamic acid content, [Reedman] 988—ab
Challenger Brand Evaporated Milk, 1127
concentrated, for camps, 66
consumption insufficient, England, 802
dietary value, 2149
effect of boiling on nutritive value, [Graham] 909—ab
effect on growth and metabolism, 968
goat, leishmania cultured in, [Laurinsich] 1860—ab
goat, Meyenberg Evaporated, 1815
growth factor in grass, [Kohler] 989—ab
human, antiseptic properties, 1640—E
human, morphine and calomel in, effects on child, 67
Macmarr Brand Evaporated, Max-I-Mum Brand Evaporated; Sunny Skies Brand Evaporated, 1455
pasteurization, phosphatase test to detect underpasteurized, [Geiger & Davis] *1363
Phyllis XXXXX Brand Evaporated, 359
Schaaf's "Favored For Flavor" Evaporated, 433
skimmed, supplementing typical Indian diets, [Aykroyd] 1081—ab
sofkurd, 973
streptococcus in, stored at atmospheric temperatures, [Pullinger] 1856—ab
substitutes for, 222
Suffolk Brand Evaporated Milk, 1201
vitamin D, produced by feeding cows irradiated yeast, Council report, 1814
"Whole Milk for the Whole Family" Irradiated Evaporated Milk Institute leaflet, 31
MILKER'S warts, [Bonnevie] 85—ab
MILLER, JOSEPH L., death; portrait, 520
MILWAUKEE County: See Index to Organization Section
MIMS' (J. H.) Iron Tonic, 2085—BI
MINERAL LIFE, 2156—BI
MINERAL OIL: See Petrolatum, liquid
MINERAL WATERS, Bacillus coli content, 58
balneary donated to Milan University, 2152
radioactive thermal waters, 368
MINERALS and intestinal flora, 1638—E
loss through skin, [Freyberg] 1670—ab
MINERS, coal, icterohemorrhagic spirochetosis in, 443; 1826
coal, tuberculosis in, Belgium, 602
MINES gases, their effects, 975
MISSISSIPPI VALLEY tuberculosis meeting, 964
MISSOURI State Medical Association: See Index to Organization Section
MITA, S., president of Formosan U., 1921
MOLD, cephalosporium as epiphyte on renal calculus, [Oomen] 1086—ab
growth in foods; not pathogenic to man, 300
MOLE, Hydatidiform: See Uterus
MOLLINGER'S Original White Salve, 1741—BI
MONILIA, classification, [Martin] 824—ab
MONKEYS, tuberculous infection, [Nègre] 241—ab
MONONUCLEOSIS, infectious, etiology, [Nyfeldt] 834—ab
infectious, serodiagnosis, [Durupt] 1237—ab
MOONE'S Emerald Oil, 728—BI
MOORE, JOHN W., death, 1552
MORGAGNI Syndrome: See Frontal Bone
MORLAND, EGBERT, editor of *Lancet*, 516
MORPHINE, action on kidney, 1137
addict (cured), postoperative medication for, 1839
addiction, effect of season and diet, [Amsler] 1240—ab
rôle in precipitating biliary colic, [Walters & others] *1591
sulfate vs. analgesic action of pantopon, [Hayman & Fox] *1813
use in lactating mother, effect on child, 67
MORRHUATE, Sodium: See Fascia hernia; Sodium morrhuate; Varicose Veins, treatment
MOSQUITOES, bites, desensitizing, 896
repellents, 299
MOSS, Spanish, [Metzger] 1076—ab
MOTHERS: See Maternal
MOTH-proofing, toxicity of sodium aluminum silicofluoride, 1929
MOTION PICTURES: See also Index to Organization Section
film on syphilis, reservations on, 958—E
of radium refining processes, 440
MOTOR: See Automobiles
MOUNTAIN SICKNESS: See Altitude, high
MOURIER, DR., 145
MOUTH: See also Gums; Jaws; Lips; Teeth
buccopharyngeal sepsis in typhoid, [Orgaz] 396—ab
burns of mucosae from sodium perborate, 731
tuberculous ulcers, [Ormerod] 1856—ab
MUCIN virulence of Haemophilus influenzae, 1283—E
MUCK'S Epinephrine Probe Test: See Epinephrine
MUCOSA Pattern: See Esophagus, roentgen study; Stomach, roentgen study
MUCOUS MEMBRANES: See Mouth; Nose; etc.
MULFORD, H. K., dies, 1462
MUNIZ'S Leukotomy: See Brain surgery
MUSCAE volitantes, 523
MUSCLES: See also Myasthenia: Myositis
adductors, contraction as sign of appendicitis, [Richet] 2023—ab
anomalies, supernumerary, of leg, 371
Atrophy: See Atrophy
chronaxia, alteration by sympathetic, [Weiser] 2109—ab
disease, bile pigments, elimination increased in, 1467
Dystrophy: See Dystrophy
"fibrillation" in focal infection, [Slauck] 319—ab
Injection into: See Injection, intramuscular
ischiocavernosus, surgical treatment of impotence, 970
myelogram in lung abscess, [Bertola] 1238—ab
Ocular, Paralysis: See Eyes, paralysis
Pain in: See Myositis
psoitis (acute), roentgen sign, [Varela Fuentes] 470—ab
salt-water distribution in nurslings, [Kerpel-Fronius] 750—ab
scalenus anticus syndrome and cervical rib, 877—E
spasm (facial), surgical treatment, [Coleman] 165—ab
spasm (tonic) of levator and coccygeus and piriformis, massage relieves, [Thiele] *1271
twitchings (generalized): myokymia, 1835
MUSEUM of dermatosyphilographic models (Deleeuw collection), 888
MUSIC, musicogenic epilepsy, [Critchley] 171—ab
playing wind instruments in pulmonary tuberculosis, 454
MUSSEL, quarantine, California, 437
MUSTARD GAS: See *di*Chloro-Ethyl Sulfide
MUTINES in human milk, 1640—E
MYALGIA, Epidemic: See Myositis, epidemic
MYASTHENIA gravis, case report; necropsy, [Barton & Branch] *2044
gravis, choline esters in, [Fraser] 1080—ab
gravis, clinical review, [Kennedy] 1578—ab
gravis, prostigmin in diagnosis, [Gammon & Schele] *413; (quinine as adjuvant to), [Harvey] 1488—ab
gravis, prostigmin (orally) in treatment, [Viets & others] *1956
induced with thymus extract and tissue, 147
MYCOSIS: See Actinomycosis
Cutaneous: See Epidermomycosis
MYDRIATICS, accidental use of scopolamine for homatropine, [Dameshek & Feinsilver] *561
atropine, psychosis after, 1931
MYELINATION: See Spinal Cord
MYELOCYTES: See Bone Marrow
MYELOGRAM: See Muscles
MYELOMA, [Transbøl] 1322—ab
plasma cell, and hyperproteinemia, [Schumacher] 1757—ab
MYELOSIS: See Bone Marrow
MYIASIS, intestinal, from Sarcophaga larva on cold meat, [Bryan] *573
MYOCARDITIS, acute, precordial leads in, [Mortensen] 544—ab
diphtheritic, [Begg] 87—ab
MYOCARDIUM: See Heart Muscle
MYOGLOBIN, research on, 1467
MYOKYMIA: See Muscles, twitchings
MYOMA: See Uterus tumors
MYOSITIS, epidemic, in children, [Pickles] 1080—ab
ossificans (progressive), treatment, 1567
MYXEDEMA after thyroid resection, 1747
angina pectoris, and, [Froment] 89—ab
MYXO-ENDOTHELIOMA within velum pendulum, [Simeoni] 242—ab
MYXOFIBROMA of spermatic cord, [Wolbarst] *1623

Medicolegal Abstracts

ABANDONMENT OF PATIENTS: malpractice in relation to, 1071
ADVERTISING: statutory restrictions upheld, 819
untrue statements; revocation of optometrist's license, 1573
AGRANULOCYTOSIS: trauma in relation to, 1305
workmen's compensation in relation to, 1305
ANEMIA: Hart's copper-iron patent; infringement of, 533
splenic; streptococcic septicemia in relation to, 459
ANESTHETICS: ether; insurance, accident, in relation to death from, 1666, 1754
formalin mistakenly used for, 305
insurance, accident, in relation to, 1666, 1754
ANIMALS: See Animal Experimentation
ANIMAL EXPERIMENTATION: dogs distributed from pound to medical schools; validity of ordinance, 1754
APOMORPHIN: See Narcotics
ARSENIC: poisoning; workmen's compensation in relation to, 388
ARTERIOSCLEROSIS: workmen's compensation in relation to, 1843
ASSAULT AND BATTERY: operations, unauthorized; emergency must be proven, 161
ASTHENIA: neurocirculatory; trauma in relation to, 1935
AUTOPSIES: insurer's right to, 460
justice of the peace's right to order, 387
reports as privileged communications, 1481
unauthorized; illegal order of justice of the peace no justification, 387
unauthorized; liability of insurance company, 387
BARBITURIC ACID DERIVATIVES AND COMPOUNDS: veronal; death from; insurance, accident, in relation to, 1481
BRAIN: abscess of; insurance, accident, in relation to, 1306
abscess of; over-exertion in relation to, 1306
softening of; herniotomy as cause of, 1306
BRONCHITIS: chronic; workmen's compensation in relation to, 738
CANCER: see also Sarcoma
insurance, life, in relation to, 387
trauma in relation to, 1480
CHILDBIRTH: See Malpractice
CHIROPRACTIC: cerebral hemorrhage and death following adjustment, 233
licenses; revocation; "moral turpitude" in relation to murder, 1936
licenses; revocation; statute of limitations inapplicable, 1936
standard by which practitioner judged, 233
CHLORINE: bronchitis, chronic, following exposure to chlorine gas, 738
COLDS: workmen's compensation in relation to, 1480
COMPENSATION OF PHYSICIANS: dentists; retention of dental plate for fee, 1935
hospital's right to recover for medical services, 534
liability of: father of minor, 306
witnesses, expert; attorney's right to obligate client to pay, 162
witnesses, expert; refusal to testify before receipt of fee, 2166
CONTEMPT OF COURT: injunction restraining unlicensed practice of medicine violated, 616
witnesses, expert; refusal to testify before receipt of fee, 2166
CORPORATIONS: embalming; cooperative associations; benefits not confined to members, 738
optometry; right to practice, 306, 1228
DEATH: certificates; privileged communications in relation to, 1481
DENTAL PRACTICE ACTS: advertising; statutory restrictions; validity of, 819
enforcement; complaint framed in terms of statute valid, 1227
enforcement; injunctions to restrain enforcement, 819
examinations; grades; failure of act to prescribe passing grade, 533
examinations; subjects; board's right to select subjects, 533
examinations; subjects; curriculi of dental schools adopted by reference, 533
examining boards; delegation of legislative authority to, 533
licenses; revocation; "moral turpitude;" indecent exposure in relation to, 1936
offices; restrictions on ownership valid, 1227
repeal; reenactment with amendments; effect of, 1936
schools; delegation of legislative authority to, 533
schools; "practices included in the curricula;" legislative adoption by reference, 1227
DENTISTS: See also Dental Practice Acts; Malpractice
dental plates; retention for fee; fraudulent conversion, 1935
DIABETES: gangrene; workmen's compensation in relation to, 2094
DISEASES: See also particular diseases
pain as a disease, 902, 1152
DISFIGUREMENT: workmen's compensation in relation to, 902
DOGS: See Animal Experimentation
DRUGS: osteopaths; right to use denied, 76
proprietary medicines; pharmacist's liability for injury from use of, 1072, 1843
EMBALMING: cooperative associations; benefits not confined to members, 738
ENDOCARDITIS: malignant; workmen's compensation in relation to, 2166
EUGENICS: sterilization; vasa deferentia, ligation of in relation to, 1574
EVIDENCE: See also Malpractice, evidence; Privileged Communications; Workmen's Compensation Acts, evidence
complaints and statements; of patient to physician, 1665, 1935
complaints and statements; of persons examined for purposes other than treatment, 738, 1843
gunpowder test; admissibility of paraffin mould, 1573
hospital records; admissibility, in general, 1306
paraffin mould; admissibility, 1573
roentgenograms; admissibility, 161
roentgenograms; interpretation of; qualification of witness, 161
witnesses, expert; qualifications; roentgenologists, 161

Medicolegal Abstracts—Continued

EVIDENCE—Continued
witnesses, expert; opinion testimony; basis of: complaints and statements of patients, 1935
witnesses, expert; opinion testimony; basis of: complaints and statements of person examined for purposes other than treatment, 1843
witnesses, expert; refusal to testify before receipt of fee, 2166
EYE: blindness; syphilis and trauma in relation to, 901
FEDERAL COMMUNICATIONS ACT: radio; electrical transcriptions produced for foreign broadcast, 1393
FRAUDULENT CONVERSION: dental plate retained by dentist for fee, 1935
GANGRENE: diabetic; workmen's compensation in relation to, 2094
GUNPOWDER: paraffin test; admissibility in evidence, 1573
HARRISON NARCOTIC ACT: addicts; prescribing for, 1753
addicts; sales by physician to, 1844
administering as constituting sale, 1844
constitutionality upheld, 1753
entrapment of physician, 1844
moral turpitude in relation to violation of act, 2015
osteopaths; registration denied, 76
sales; administering as constituting, 1844
sales; prescribing as constituting, 1753
HEATSTROKE: See also Sunstroke
workmen's compensation in relation to, 234
HEMIPLEGIA: workmen's compensation in relation to, 1843
HEMORRHAGE: cerebral; chiropractic adjustment in relation to, 233
cerebral; workmen's compensation in relation to, 1843
HERNIA: operation for as cause of softening of brain, 1306
strangulation; workmen's compensation in relation to, 1152
trauma in relation to, 1935
HOSPITALS, CHARITABLE: nurses, negligence of; liability for, 305
pay patients; liability to, 1844
taxes; exemption from, 1665
HOSPITALS, FOR PROFIT: care to be exercised by, 983
childbirth; failure of employees to observe symptoms of eclampsia, 2094
burns; electric lamp, 984
judgment for malpractice against attending physician; effect on hospital's liability, 984
narcotized patients; injury to when left unattended, 983
nurses; relative liability of physician and hospital for negligence of, 984
nurses; undergraduate; negligence of, 983
patient left unattended by nurse, 983
tuberculosis contracted by baby from nurse, 1306
HOSPITALS, GOVERNMENTAL: orderlies; workmen's compensation in relation to, 1480
workmen's compensation in relation to, 1480
HOSPITALS, IN GENERAL: fees; priority in payment from decedent's estate, 1226
medical services; hospital services as embracing, 1226
medical services; hospital's right to recover for, 534
nurses' services; hospital's right to recover for, 534
records; admissibility in evidence, 1306
records; privileged communications in relation to, 1481
HYPERTENSION: workmen's compensation in relation to, 1843
HYPERTHYROIDISM: trauma in relation to, 1935
INJUNCTIONS: See Dental Practice Acts, enforcement; Medical Practice Acts, enforcement; Optometry Practice Acts, enforcement
INSURANCE, ACCIDENT: "accidental means" construed, 1481, 1666, 1754
anesthetics; asphyxiation following, 1754
anesthetics; death from, 1666
brain abscess; over-exertion in relation to, 1306
narcotics; apomorphin; death from, 1754
sacro-iliac strain; preexisting anomalies of spine in relation to, 738
septicemia; trauma and splenic anemia in relation to, 459
"total and permanent disability," 1844
veronal; death from, 1481
INSURANCE, HEALTH: "disease" construed, 1152
paralysis; insurer's right to demand tests of blood and spinal fluid, 616
syphilis; insurer's right to demand tests of blood and spinal fluid, 616
"totally disabled" construed, 1843
tuberculosis; pulmonary; total and permanent disability in relation to, 306, 1307
INSURANCE, IN GENERAL: autopsies; reasonableness of demand by insurer, 466
autopsies; unauthorized; illegal order of justice of the peace no justification, 387
health of applicants; cancer, 387
health of applicants; representations of applicants; when fraudulent, 387
INSURANCE, LIFE: "attended by a physician" construed, 387
pneumonia, lobar, a "bacterial trouble," 1228
JAILS: maintenance of as governmental function, 1480
venereal disease contracted by prisoner; liability of municipality, 1480
JUSTICES OF THE PEACE: autopsies; right of justice to order, 387
LIENS: dental plate retained by dentist for fee; fraudulent conversion, 1935
MALPRACTICE: abandonment of patient, 1071
action; nature of, whether tort or contract, 984
anesthesia; formalin mistakenly used for, 305
childbirth; eclampsia; failure to observe symptoms of, 2094
childbirth; prophylaxis instilled in baby's eyes by nurse; liability of physician, 1665
chiropractors; cerebral hemorrhage and death following adjustment, 233
chiropractors; standard by which judged, 233
contract: see action, supra
damages; results of original injury not chargeable to physician, 388, 819
dentistry; fracture of patient's jaw; duty to disclose, 1394
dentists; osteomyelitis following tooth extraction, 1072
dentists; skill and care required, 1072
duty to patient; delegation of, 305, 984
duty to patient; disclosure of injury from treatment, 1394
eclampsia; failure to observe symptoms of, 2094
employers; physician employee an independent contractor, 819
evidence; customary procedures; admissibility of testimony concerning, 305
evidence; res ipsa loquitur; foreign bodies left in patients, 1393
evidence; witnesses, expert; categorical answer to lengthy hypothetical question not required, 76
evidence; witnesses, expert; conclusiveness of testimony, 1573
evidence; witnesses, expert; lay testimony as basis of opinion, 161
evidence; witnesses, expert; necessity for, 306, 1753
evidence; witnesses, expert; nonsectarian physician may testify concerning sectarian practice, 233
evidence; witnesses, lay; admissibility of testimony, 161, 1573, 1753
eye; injury attributed to negligent treatment of gonorrheal ophthalmia, 820
eye; injury attributed to prophylaxis, 1665
foreign bodies left in patients; res ipsa loquitur, 1393
foreign bodies left in patients; sponges; safety devices not supplied by hospital, 1393
formalin; mistakenly used for novocaine, 305
fractures; amputation of foot without consent, 161
fractures; gas gangrene necessitating amputation of arm, 234
fractures; inflammation of bone following fracture of leg, 306
fractures; jawbone fractured by dentist; duty to disclose injury to patient, 1394
fractures; shortening of leg following treatment, 1573
fraudulent representations; accrual of right of action, 1151
gangrene following fracture, 234
gonorrheal ophthalmia; injury attributed to negligent treatment, 820
gonorrheal ophthalmia; injury attributed to prophylaxis, 1665
Independent contractors; physician not an employee, 819
infected wound; failure to recognize septic condition, 1753
injury to patient; duty to disclose, 1394
limitation of actions; accrual of right of action, 1151
limitation of actions; tort, not contract, basis of action, 984
negligence; causal relation to injury; validity of instruction to jury, 234
novocaine; formalin mistakenly used for, 305
nurses; hospital; physician's liability for negligence of, 305, 984, 1665
operations; consent; emergency as justification for unauthorized operation, 161
ophthalmia, gonorrheal; injury from prophylaxis, 1665
ophthalmia, gonorrheal; negligent treatment of, 820
osteomyelitis; tooth extraction as cause of, 1072
silver nitrate; instillation by hospital nurse; liability of physician, 1665
skill and care; standards; by which dentists judged, 1072
skill and care; standards; by which sectarian practitioner judged, 233
skill and care; standards; competency of witness to testify concerning, 76, 233
skill and care; standards; when disease first appears in particular locality, 76
sponges; accidentally left in patient, 1393
MALPRACTICE—Continued
sponges; accidentally left in patients; res ipsa loquitur, 1393
sponges; safety devices not supplied by hospital, 1393
workmen's compensation award as bar to suit, 1666
MEDICAL PRACTICE ACTS: contempt of court; violation of injunction restraining illegal practice, 616
diagnosis; absence of as negativing practice of medicine, 983
diseases; pain as a disease, 902
enforcement; injunctions to restrain enforcement; federal court's jurisdiction, 1665, 2015
enforcement; injunctions to restrain violations, 2015
enforcement; injunctions to restrain violations; subterfuge to evade injunction, 616
enforcement; quo warranto; burden of proof, 902
examining boards; schools, naturopathic; reputability determinable by board, 233
Harrison Narcotic Act; violation of as involving moral turpitude, 2015
licenses; aiding unlicensed practitioner; license no bar to prosecution, 233
licenses; revocation; certiorari determinative only of board's jurisdiction, 2015
licenses; revocation; complaint; allegation of violation of medical practice act necessary, 305
licenses; revocation; complaint; charge of dispensing "drugs" insufficient, 2015
licenses; revocation; crimes; commutation of sentence, 1936
licenses; revocation; fraud in procuring license, 305
licenses; revocation; moral turpitude, conviction of offense involving, 901, 2015
licenses; revocation; order of revocation; sufficiency of, 2015
licenses; revocation; prohibition, writ of as appeal procedure, 305, 1936
licenses; revocation; statute of limitations inapplicable, 1936
licenses; revocation; venereal diseases, failure to report, 901
licenses; revocation; wilful disobedience of law, 901
limitations of actions; revocation proceedings, 1936
"moral turpitude"; indecent exposure in relation to, 1936
"moral turpitude"; violation of Harrison Narcotic Act in relation to, 2015
naturopathy; applicant's school of graduation not recognized, 233
naturopathy defined, 1665
repeal; reenactment with amendments; effect of, 1936
school of healing; incidental demonstrations not practice of medicine, 983
subterfuge; "lease" of cancer hospital to licentiate, 616
MEDICAL RESEARCH: See Animal Experimentation
MEDICAL SERVICES: hospital services as constituting, 1226
necessaries of life as including, 306
NARCOTICS: See also Harrison Narcotic Act
amendment of unconstitutional act; validity of amendment, 1227
apomorphin; insurance, accident, in relation to death from, 1754
title of narcotic act insufficient, 1227
NATUROPATHY: definition of term, 1665
school of graduation of applicant not recognized, 233
NURSES: hospital's right to recover for nurses' services, 534
negligence of; liability for, 305, 983, 984, 1306, 1665
student; workmen's compensation in relation to, 902
workmen's compensation in relation to, 902, 1573
OPHTHALMIA: gonorrheal; negligent treatment, 820
gonorrheal; prophylaxis; injury from, 1665
OPHTHALMIA NEONATORUM: prophylaxis; injury from, 1665
OPTOMETRY PRACTICE ACTS: corporations; practice of optometry by, 306, 1228
enforcement; injuctions to restrain enforcement; federal court's jurisdiction, 2015
enforcement; injunctions to restrain violations, 2015
examining boards; exercise no judicial function, 1573
licenses; revocation; advertisements containing untrue statements, 1573
licenses; revocation; writ of prohibition to restrain, 1573
OSTEOPATHY: drugs; right to use denied, 76
narcotics; registration under Harrison Narcotic Act denied, 76
PARAFFIN: mould admissible in evidence, 1573
PARALYSIS: insurer's right to demand tests of blood and spinal fluid, 616
workmen's compensation in relation to, 1843
PARESIS: hereditonomy in relation to, 1306

V 1
193

Medicolegal Abstracts—Continued
PATENTS: anemia; Hart's copper-iron patent; infringement of, 533
PATERNITY: vasa deferentia, ligation of in relation to, 1574
PHARMACISTS: drugs; liability for injury following use of, 1072, 1843
poisons; failure to label as required by law, 2016
prescriptions; error in filling, 2016
PNEUMOCONIOSIS: silicosis; workmen's compensation in relation to, 1394
PNEUMONIA: lobar; a "bacterial trouble," 1229
POISONS: label; pharmacists's failure to observe statutory requirement, 2016
POISONING: arsenic; workmen's compensation in relation to, 388
POTT'S DISEASE: workmen's compensation in relation to, 1071
PRESCRIPTIONS: error in filling; pharmacist's liability, 2016
PRIVILEGED COMMUNICATIONS: autopsy reports, 1481
death certificates, 1481
disclosures by; examining physicians; when admissible, 739
hospital records, 1481
waiver; testimony of patient as constituting, 1574
waiver; wife; presence during examination as constituting waiver, 39
waiver; wife; right of second wife to waive, 739
PROPRIETARY MEDICINES: See Drugs
RADIO: electrical transcriptions; production of for foreign broadcast, 1393
ROENTGENOGRAMS: see Evidence
RACHO-ILIAC STRAIN: insurance, accident, in relation to, 738
workmen's compensation in relation to, 1226
SARCOMA: see also Cancer
spinal; workmen's compensation in relation to, 388
trauma in relation to, 388, 1666
SCHOOLS: demonstrations of theory of healing not practice of medicine, 985
dental; delegation of legislative authority to, 533
dental; "practices included in the curricula"; legislative adoption by reference, 1227
naturopathic; reputability determinable by medical examining board, 233
SEPTICEMIA: streptococcic; trauma and splenic anemia in relation to, 459
SILICOSIS: See Pneumoconiosis
STERILITY: ligation of vasa deferentia in relation to, 1574
STRAIN (OVER-EXERTION): See also Trauma
brain abscess in relation to, 1396
ulcer, duodenal; perforation of in relation to, 161
SUNSTROKE: see also Heatstroke
workmen's compensation in relation to, 234
SYPHILIS: See Venereal Diseases
TAXES: hospitals, charitable; when exempt, 1665
TRAUMA: see also Strain (Over-Exertion)
abscesses, pulmonary, in relation to, 162
agranulocytosis in relation to, 1305
asthenia, neurocirculatory, in relation to, 1935
blindness in relation to trauma and syphilis, 901
cancer in relation to, 1460
gangrene, diabetic, in relation to, 2094
hernia in relation to, 1935
hyperthyroidism in relation to, 1935
sarcoma in relation to, 388, 1666
septicemia, streptococcic, in relation to splenic anemia and trauma, 459
TUBERCULOSIS: hospital's liability for disease contracted by baby from nurse, 1396
pulmonary; permanent and total disability in relation to, 396, 1397
spinal; workmen's compensation in relation to, 1071
tuberculoma of brain in relation to death, 1071
ULCERS: duodenal; perforation of; workmen's compensation in relation to, 161
VAS DEFERENS: ligation of in relation to sterility, 1574
VENEREAL DISEASES: See also Ophthalmia Neonatorum
gonorrheal ophthalmia; loss of eye attributed to negligent treatment, 820
municipality's liability to prisoner who contracts disease, 1460
report to police; failure of physician to make, 901
syphilis; blindness in relation to trauma, 901
syphilis; insurance, health, in relation to, 616
syphilis; workmen's compensation in relation to, 901
VERONAL: See Barbituric Acid Derivatives and Compounds
VITAL STATISTICS: death certificates; privileged communications in relation to, 1481
WAR RISK INSURANCE ACT: tuberculosis, pulmonary; total and permanent disability in relation to, 1307
WITNESSES: See Compensation of Physicians; Evidence; Malpractice, evidence
WORDS AND PHRASES: "accidental death," 1754
"accidental means," 1481, 1666, 1754
"accredited dental schools," 533
"attended by a physician," 387
"bacterial trouble," 1229
"contributing factor," 234
"disease," 902, 1152
"drugs," 2015
"learned profession," 1228
"medical services," 1226
"moral turpitude," 901, 1936, 2015
"naturopathy," 1665
"permanent and total disability," 396
"practices included in the curricula," 1227
"resulting, directly or indirectly, from diseases in any form," 459
"total and permanent disability," 1844
"totally disabled," 1843
"wilful disobedience of law," 901
WORKMEN'S COMPENSATION ACTS: abscesses, pulmonary, 162
agranulocytosis, 1305
arsenic poisoning an occupational disease, 388
arteriosclerosis a contributing cause of disability, 1843
blindness; trauma and syphilis in relation to, 901
brain, softening of; hemiotomy as cause of, 1396
bronchitis, 738
cerebral hemorrhage induced by excitement, 1843
colds; compensability of sequelae, 1480
diabetes; gangrene precipitated by trauma, 2094
disfigurement, 902
endocarditis, malignant; trauma in relation to death from, 2166
evidence; medical books, 901
evidence; medical rating board versus claimant's expert witnesses, 162
eye; loss of; violent in impaired eye, 162
gangrene; diabetes and trauma in relation to, 2094
heatstroke, 234
hemiplegia induced by excitement, 1843
hernia; operation for as cause of softening of brain, 1396
hernia; pre-existing; strangulation of, 1152
hospital orderly; compensability of injury to, 1480
hospitals, governmental; compensability of injury to orderly, 1480
hypertension a contributing factor to disability, 1843
malpractice by physician; liability for, 1666
medical treatment; operations; right of court to order, 1393
medical treatment; physicians; selection of; implied consent by employer, 1843
nurses, student; as employees, 902
pneumoconiosis; silicosis, 1394
poisoning; arsenic, 388
sacro-iliac strain, 1226
sarcoma of spine, 388
sunstroke, 234
syphilis; sequelae of, 901
tuberculoma of brain in relation to death, 1071
tuberculosis; contracted by nurse, 1573
tuberculosis, spinal, 1071
ulcers; duodenal; perforation of, 161

N

N-A No. 7; N-A No. 7½, 2156—BI
NAEGELI, OTTO, retired, 806
NAILS, arsenic effect on; Mees's diagonal diagnostic stripes, [Simons] 94—ab
cystine in, tests for; sulfur to improve nails, 68
finger, changes after gold dermatitis, [Bellefante] 398—ab
finger, dactylitis from pushing back perionguinal tissue (manicure) [Nicholas] 395—ab
infection, iodine plus dry dressing, [Cummins] 1061—C
thumb, hematrophy, heredity, [Montant] 541—ab
toenail, ingrown, [Heifetz] 2097—ab
NAPHTHA, industrial hazard, [McConnell] *764
NAPHTHALENE, chlorinated, industrial hazard, [McConnell] *763; 1386
NARCOLEPSY: See Sleep disorders
NARCOTICS: See also Morphine; Opium; etc.
Medicolegal Abstracts at end of letter M
control, advisory board on, New York, 1915
habit from taking seconal and pentobarbital sodium, 527
NASAL Tube: See Duodenal Tube
NASOPHARYNX, tumors (malignant), [Needles] 1759—ab
NATIONAL: See also International; and list of societies at end of letter S
Advisory Cancer Council, 435—E; (Dr. Hektoen, director), 1373
Anti-Syphilis Committee, 1823
Anti-Syphilitic League; See Index to Organization Section
Bureau of Student Guidance, Germany, 445
Cancer Institute, 434—E; 883
NATIONAL—Continued
Cancers Association, Research Laboratory, 1046—E
Committee for Mental Hygiene, psychiatric fellowship, 1552
Conference on Education Broadcasting: See also Index to Organization Section
Conference on Educational Broadcasting (second), 719
Congress of Obstetrics and Gynecology, proposed for 1939, 217
Education Association department of health and physical education, 362—E
Eye Service: See Index to Organization Section
Foundation for Infantile Paralysis: See Foundations
Institute of Health, new buildings, 883
Research Council, (Markle Foundation grant for endocrine research), 216; (officers) 514; (fellowships available) 1552
Safety Congress and Exhibit, (sixth), Kansas City, Mo., 1134
"Safety First" Association report, 442
NATURE'S Mineral Food, 1832—BI
Vital Food, 1925—BI
NATUROPATHY: see also Medicolegal Abstracts at end of letter M
four solicitors for fake hospital drive sentenced, Philadelphia, 1133
NAUSEA: See Seasickness; Vomiting
NAVY, U. S., (examination for commission), 720; 1997; (skin irritation and cancer in), [Peller] 1486—ab
NECK: See also Throat
cellulitis, requiring tracheotomy, [New] 1672—ab
enlargement, cause, 1386
Fistula: See Fistula
NECROSIS: See Adrenals cortex; Pancreas
NEEDLE: See also Bursitis
found in heart at necropsy, [Rea & Hoover] *266
NEGROES: See also Index to Organization Section
attendants at births, 1733
hemophilia in, treatment, [Pachman] 538—ab
hospital (first state owned) for, Maryland, 881
kidney calculi vs. diet in Bantu, [Vermooten] *857
medical students and graduates, *671; *672
syphilis incidence, [Holloway] 164—ab
thrombo-angiitis obliterans in, [Yater] 235—ab
tuberculosis in, 1375
urolithiasis in, [Cary] 168—ab
NEMBUTAL, commercial monopoly of proprietary name, 504
NEMOURS Foundation: See Foundations
NEOARSPHENAMINE treatment, intravenous, medical shock after, [Weinberg] 822—ab
treatment, synthetic ceritamic acid in, [Landfisch] 834—ab
NEOSILVOL nose drops, argyria after, 977
NEOSYNEPHRINE, chemical formula, *2065
NEPHRITIS: See also Pyelonephritis
atrophic chronic, of childhood, [Debré] 628—ab
clinical acute, pathology; pathogenesis, [Bell] 935—ab
diet and, 1292—E; [Howard] 1654—C
experimental serum, hypertension with, [Arnott] 86—ab
glomerulonephritis (acute), 2079
glomerulonephritis (chronic), anemia of, [Townsend] 2095—ab
hemolysis in, in saponin systems, [Herrald] 1845—ab
hemorrhagic acute, in children, [Yampolsky] 1488—ab
kidney calculus and, 2088
treatment, renal decapsulation, [Ciminata] 318—ab
types of, surgical aspect, 2079
NEPHROPEXY: See Kidneys, movable
NEPHROSIS: See Kidneys, disease
NEPHROSTOMY: See Kidneys surgery
NERVES; See also Anesthesia; Nervous System; Neuralgia; Neuritis; Neurology; etc.
auditory, intracranial surgery, 2000
irritation from fibrosis after wrist operation, 68
laryngeal, recurrent (inferior), injury in thyroidectomy, [Quinlan] 809—C; [Young] 1295—C; [Batson] 1562—C; [Quinlan] 2087—C
Optic: See also Neuritis, optic
optic atrophy, tryparsamide for, [Mayer] *1793
optic, bilateral atrophy, 1220
optic, chiasma syndrome, 886
optic, chiasmatic arachnoiditis, 2151
Peripheral; See also Neuritis
peripheral, injuries, 218
phrenic (left) section for adhesive pericarditis, [Martin] 1491—ab
Sciatic: See Sciatica
splanchnic, resecting for abdominal pain, [Diez] 176—ab
splanchnic, resection, effect on hypertension, [Page] 389—ab

NERVES—Continued
splanchnicotomies, cardiac and pulmonary pains during, [Leriche] 748—ab
Trigeminus: See also Neuralgia, trigeminal
trigeminus track encephalitis, [Hoff] 244—ab
vestibular chronaxy, effect of electrolytes, [Hurynowiczówna] 94—ab
NERVOUS SYSTEM: See also Brain; Spinal Cord
Autonomic: See Nervous System, Sympathetic
changes after arsphenamine, [Russell] 1673—ab
chemical transmission of nervous action, Loewi research on, 1828
disease (functional) increase, 1824
disease (serum), [Kraus] 236—ab
disease, vitamin B₁ therapy, [Helman] 1084—ab
Journal of Neurophysiology, 1997
organic, bone formation in, [Voss] 243—ab
roentgen rays effect on, 60
Syphilis: See Neurosyphilis
NERVOUS SYSTEM, SYMPATHETIC, aviation and, 518
muscle chronaxia altered by, [Weiser] 2109—ab
origin of hypertension of juveniles, [Tournaire] 341—ab
sun effect on, 62
Surgery: See Sympathectomy
NEURALGIA, peripheral, intraspinal alcohol treatment, [Spangenberg] 749—ab
trigeminal idiopathic, applying leeches over jugular veins for, [Meyer] 543—ab
NEURITIS, optic, from sulfanilamide, [Bucy] •1007
optic (retrobulbar) in pellagra, [Fine] 904—ab
peripheral, calcium levels in "jake" paralysis, 70
polyneuritis of pregnancy, 527
NEUROBLASTOMA, symmetrical adrenal, metastasizing to right auricle, [Doane & Solis-Cohen] •578
sympathetic, roentgen aspect, [Doub] •1188
NEURODERMATITIS, 1656
NEUROFIBROMATOSIS: See Ganglioneurofibromatosis
NEUROLOGY, American Board of, (tabulated data on certification) 42; 43; (examination) 1287
Child Neurology Research established by Friedsam Foundation, 146
Congress of French Alienists and Neurologists (41st), 1054
Congress of German Neurologists, 2151
past and present, [Vicq] •399
NEUROPSYCHOSIS: See Psychoneurosis
NEUROSIS: See also Psychoneurosis
definition in psychiatry, 228
national, nurturing, [Aring & Bateman] •1092
speech index of neurotic behavior, [Greene] •187
vasomotor, or Raynaud's disease, 1927
NEUROSYPHILIS, arsphenamine jaundice in, 152
asymptomatic, [Carrera] 176—ab; (cytometric study) [Brodie] 1938—ab
prenatal [Cole] •584
treatment, Nelson's typhoid vaccine, 380
treatment, present-day status, [O'Leary] •1163
treatment, tryparsamide, [Mayer] •1793
treatment, typhoid H antigen vaccine, [Kulchar] 822—ab
NEUTROPENIA, Malignant: See Angina, agranulocytic
NEVAH Tablets, 2085—BI
NEVUS, cerebriform, resembling cutis verticis gyrata, [Hammond] 988—ab
pigmented or seborrheic warts, 1746
tissues, histogenesis, [Maggio] 1675—ab
NEW CENTURY Sanitarium, 1904
NEW ENGLAND Physical Therapy Society now Society of Physical Medicine, 1820
NEW YORK: See also Index to Organization Section
Academy of Medicine committee report on serum treatment of pneumonia, [Cecil & others] •1323
City, plan for combating syphilis, [Clarke] •1021; (schools use A. M. A. broadcasts) 1727—E; (monthly mean temperatures) [Master] 2157—C
University (graduate work) 1371; (promotions) 2073
World's Fair, (health exhibits) 439; (Dr. J. Peter medical director) 1643
NEW ZEALAND: See Index to Organization Section
NEW-BORN: See Infants, New-Born
NEWLAND, HENRY, presidential address; 1555
NEWSPAPERS: See also Index to Organization Section
health column, suggestions for writing, 1926
health columnist, William Brady, 1282—E
medical supplement, (Seattle *Times*) 140; (Detroit *Free Press*) 1643
NICOTINE: See Acid, nicotinic
Poisoning: See Tobacco
NIEMANN-PICK'S DISEASE, phosphatide lipoidosis, [Lignac] 998—ab
NIGHT Blindness: See Hemeralopia
Sweats: See Sweating
NINHYDRIN Reaction: See Cancer
NIPPLE, induced pain early sign of tuberculosis, [Mazzetti] 1675—ab
removal of hair on, 1041
NITRITE, Sodium: See Tobacco amblyopia
NITROGEN, fluid, spirochetes survival in, [Jahnel] 1766—ab
oxides of, mine gases, 975
*di*NITROPHENOL, toxic drugs, [Soper] 294—C
toxic hepatitis after, 731
*tri*NITROTOLUENE, toxic gases from dynamite and TNT explosions, 1217
NOBEL Prize: See Prizes
NODDING spasm, 1747
NOGUCHI, HIDEYO, memorial, 217
NOISE, campaign against, Paris, 598
campaign, methods of attack, 1625—ab
problems in England, 1500—ab; 1511—ab
reduced by law, New York City, 1286
river, reduced, Chicago, 363
traffic, comprehensive attack on, 1798—ab
NOMENCLATURE: See Terminology
NORTH PACIFIC Surgical Association, 2077
NORTHWESTERN University, book fair, 1820
NOSE: See also Colds; Sinuses, Nasal
cauterization of genital spots in dysmenorrhea, 2160
disease, use of urea in, [Levy] 1232—ab
drops, Grove's Emulsified, 716—E
drops, neosilvol, argyria after, 977
injuries, automobile, [Straith] •940
mucous, Propadrine Hydrochloride, 1279
obstruction (congenital) of choana, [Anderson] •1788
obstruction, persistent bucconasal membrane in new-born, [Lemere] •247
septum, perforation in copperplater, [Barsky] 466—ab
NOSTRUMS: See also Quacks; under names of specific nostrums
politicians and, England, 721
NOVAK'S Female Drops; Oil, 449—BI
NOVATROPINE, mental disorders from, given after insulin, [Quigley] •1363; [Quinlan] 2060—C
NOVO Iodine Compound, 2085—BI
NOVY Fellowship: See Fellowships
NURSE BRAND Blood Purifier, 2065—BI
NURSES: See also Medicolegal Abstracts at end of letter M; Index to Organization Section
diphtheria immunization at Ruchill Hospital, [Anderson] 910—ab
martyr (M. da C. Lopes), 1466
tuberculin reactions in, 58; (students) 2080
tuberculosis in, aid for, New York City, 799
NURSING scheme (provident) for London: one cent a week, 442
NUTRITION: See also Diet; Food; Vitamins
amino acids in, 2070—E
deficient, cardiovascular disorders in, [Weiss & Wilkins] •786
factors in exophthalmic goiter, [Means] 1668—ab
malnutrition, use of insulin in, [Ellman] 466—ab
metabolism (basal) and in children, [Maroney] 741—ab
needs in pregnancy, 598
of unemployed, Utrecht, 1650
problem of League of Nations, report, 945
problems in education, [McLester] •838
value of spinach, 1907
wine drinking and, South Africa, 61
NU-VIGOR Tablets, 1925—BI
NUXAPHEN, 1741—BI
NYALYPTUS, 1741—BI

O

OATMEAL, colloid bath with, directions for giving, 67
decalcifying effect, Council report, 30
OBEGYNE, 2005—BI
OBESITY, nostrum, Germania Herb Tea, 375—BI
nostrum, Pomay 117, 1142—BI; (correction) 1373; [Reed] 1654—C
nostrum, prohibit sale, Louisiana, 1285
pituitary, skin shrinkage in, 391
pituitary, vitamins needed in low calory diet, 610
pregnancy in adipose primiparas, [Møller-Christensen] 1678—ab
treatment, anterior pituitary plus thyroid extract in children, [Jacobsen & Cramer] •1161
treatment, diet, Dietene, 1043
weight reduction advisable? 893
OBSTETRICIANS, American Association of, new prize, 1916
Central Association of, 1645
OBSTETRICS: See also Abortion; Labor; Midwives
American Board of, examinations, 284; 1287; 2076
blood transfusion in, [Black] 240—ab; (continuous drip) [Winterton] 626—ab
council in Erie county, N. Y., 215
French Congress, 1999
International Congress of, 1373
National Congress of (proposed) in 1939, 217
population problems interrelated with, 1828
psychotherapy in, 1566—E
OCCUPATION: See Industrial
OCEANIC Vitex, 1925—BI
ODDI'S Sphincter: See Sphincter of Oddi
OHIO State Medical Association: See Index to Organization Section
State University, Howald scholarship, 1822
OIL: See also Cod Liver Oil; Liver Oil; Torch Oil
cutting, chronic myelogenous leukemia in machinery oilers, 1376
de Vita, 1925—BI
Fuel: See Diesel Engine
in water supply, 1838
intravenous injections, eosinophilia after, [Engelbreth-Holm] 472—ab
Iodized: See Iodized Oil
Mineral: See Petrolatum, liquid
of bergamot protects against u-v rays, [Urbach] 833—ab
of santal as urinary antiseptic, [Walther] •999
of Wintergreen: See Methyl Salicylate
vaporized solutions, lung reactions to, 1826
OLAC, 1127
OLD AGE: See also Longevity
circulatory system rôle in growing old, 1829
coronary disease in, [Glendy & others] •1775
dextrose tolerance in, [Deren] 1157—ab
geriatrics—care of the aged, 2143—E
Pensions: See Index to Organization Section
pneumonia in, respiration and heart action normal, 155
senility, [Brodin] 89—ab
vaginitis in treatment for senile, 731
OLD INDIAN Herb Laxative, 2085—BI
OLEOMARGARINE, Sunlight Brand, 1455
OLIGOPHRENIA: See Mental Defectives
OLOXO, dermatitis from hair dye, 286
OLSEN'S (Mrs.) Valuable Salve, 1741—BI
OMAHA Medical Society: See Index to Organization Section
ONIONS, cooked, allergy to, 300
ONTARIO Medical Association: See Index to Organization Section
OPERATING Room: See Surgery
OPERATIONS: See Surgery
OPHTHALMIA: See also Medicolegal Abstracts at end of letter M
neonatorum, gonorrheal sepsis in new-born after, [Hoffman & Schneider] •1447
neonatorum, silver nitrate solution for instillation, 1137
OPHTHALMOLOGY, American Academy of, 1051
French Congress, 2151
postgraduate instruction in, [Parker] •1262
OPIUM: See also Morphine
pipe, lead poisoning from, in Chinese, [Yang] 911—ab
preparations, internal use defined, 440
OPSONIC Test: See Undulant Fever, diagnosis
OPTICIANS, recognition for testing sight, England, 286
OPTOMETRY: See Medicolegal Abstracts at end of letter M
ORAL CAVITY: See Teeth
ORANGES, dye for, toxicity of yellow OB, [Climenko] •1393
juice, blood changes in tuberculous after, [Radford] 390—ab
juice, Valora Brand, 587
ORBIT Infections due to nasal sinusitis, [Huber] 1671—ab
ORCHIDECTOMY: See Testis excision
ORCHITIS: See Testis Inflammation
OREGON State Medical Society: See Index to Organization Section
ORGASM: See Coitus
ORTHOPEDICS, American—Austrian opinion: Albert Lorenz, 361—E
Brazilian Congress of (second), 720; 1466
Clinical Orthopedic Society, silver jubilee, 1051
French Congress, 1137
German Society, Congress, 1737
service for paralysis victims, Regina, 2077
services in Children's Bureau, Dr. Wilson consultant, 1917
Surgeons, American Academy of, 2077
Surgery, American Board of, (report) 47; (examination) 216
OSGOOD, ROBERT B., 1280—E
OSLER'S bibliography—730 titles, 769—ab
OSSIFICATION: See Bone
OSTEITIS deformans, circumscribed [Kasabach] 235—ab
deformans (Paget's disease), calcium tolerance curves in, [London] 1853—ab
fibrosa and parathyroids, [Eger] 2025—ab
fibrosa (generalized), metabolism in [Brunner] 92—ab
fibrosa (recurring) [Franck] 2110—ab
OSTEO-ARTHRITIS deformans (Kaschin-Beck's), iron as causative agent, [Ilyeda] 829—ab
of both sacro-iliac and lumbosacral joints and hips, 610
of spine, correct diagnosis? 1143
treatment, parathyroid extract, 2090
OSTEOCHONDRITIS of femoral epiphysis, 1296
OSTEODYSTROPHY: See Osteitis fibrosa
OSTEOMYELITIS, healing in primordial and flat bones, [Roeghoff] 394—ab
pyogenic, of spine, [Mayoral] 83—ab

OSTEOMYELITIS—Continued
vertebral, epidural infections in [Browder] 617—ab
vitamin C excretion in, [Abbasy] 1492—ab
OSTEOPATHY: See also Medicolegal Abstracts at end of letter M
court upholds hospital in refusing osteopaths right to practice, 1643
temporary injunction to, Kansas, 428
OSTEOPOROSIS, circumscribed, of skull and Paget's disease, [Kasabach] 235—ab
OSTEOPSATHYROSIS (Lobstein's disease), familial occurrence, 803; [Carrière] 830—ab
OSTEOSCLEROSIS fragilis, infantile form, [Gerstel] 1861—ab
OTITIS MEDIA, [Crebbin] 2101—ab; 2082
complications, nonsuppurative, [McConnell] 1856—ab
in airplane pilots, [Armstrong & Heim] *417
suppuration of pyramidal cells, 804
treatment, Shrapnell's membrane perforated with vertigo on syringing, 609
OTOLARYNGOLOGY, American Academy of, 1651
American Board of (examination), 1733
relation to general medicine, [Shurly] *2027
OTORHINOLARYNGOLOGY, Congress of Latin Nations on, 290
French Congress, 287; 2000
German Congress, 804
OUABAIN: See Heart insufficiency
OVARY, cysts, effect on upper urinary tract, [Kretschmer & Kanter] *1097
cysts, simple, [Stabler] 1845—ab
roentgen irradiations (small doses) in deficient menstruation, [Robecchi] 318—ab
roentgen sterilization, fractional repeated doses [Momigliano] 1859—ab
surgery, extroversion for amenorrhea, 515; [Bailey] 1585—ab
tumors, arrhenoblastoma, [Föderl] 1493—ab
tumors, fibroma with ascites and hydrothorax, [Rhoads & Terrell] *1684
tumors, granulosa cell, [von Pallos] 397—ab
tumors, menstruation and pregnancy after? 1836
OVERGROWTH: See Growth
OVULATION, testosterone propionate inhibit, [Zuckerman] 1857—ab
OWL Elixir Iron, Quinine and Strychnine, 2156—BI
OWNEN'S Vili-Veg, 1741—BI
OXFORD University, medical school, 1825
OXY Indian Cough Syrup, 606—BI
dOXYACETONE: See dHydroxyacetone
OXYGEN: See also Pneumoperitoneum
apparatus for carrying during high flights, 516
injection: See Pneumonia
tent, Collins Oxyfo Open Top, 793
tent, ill effects of being daily in, 2159
Treatment: See Brain, encephalography; Heart disease; Pneumonia; Respiratory Tract disease
OXYQUINOLINE, neutral sulfate of, to conserve blood for Wassermann test, 58
OXYURIASIS, appendicitis from, [Battaglia] 832—ab
incidence in boys, [Bozicevich] 1315—ab
treatment, tetrachlorethylene, single doses, [Wright & others] *570

P

PACHYDERMA: See Skin
PACHYPERIOSTOSIS: See Bones
PACKAGE Library: See Library
PAGET, JAMES, Jackson's letter to, [Heindel] 1295—C
PAGET'S DISEASE OF Bones: See Osteitis deformans
PAIN: See also Breast; Coccyx; Epigastrium; Legs; Menstruation; Uterus cancer; etc.
localizing, instrument for: (dermagraph) [Stern] *346; (pinwheel) [Wartenberg] 1294—C
Relief: See also Anesthesia; Cancer
relief, alcohol injections of posterior sensory roots, 1838
relief, Larodon 'Roche,' (Council report), 209
relief, pantopon vs. morphine sulfate, [Hayman & Fox] *1613
relief (postoperative) in cured morphine addict, 1839
relief, subarachnoid alcohol injection, [Peyton] 1073—ab
PALATE, myxo-endothelioma within velum pendulum, [Simeon] 242—ab
PALMER'S Lotion; Lotion Soap, 1008—BI
PALMIERI, VINCENZO M., appointment, 62
PAN AMERICAN Medical Association, seventh cruise congress, 216; 1462; 2077
PANCREAS, Fistula: See Fistula
function, iodized oil test, 369
infarct, 1464
Inflammation: See Pancreatitis
necrosis (acute), etiology, [Solovov] 632—ab
secretion, hyperinsulinism or hypoglycemia? 378
secretion (juice), etiologic factor in gallbladder disease, [Wolfer] 393—ab
structure, effects of thymus irradiation on, [Bentivoglio] 995—ab
PANCREATITIS, [Abell] *1243; [Friedenwald] 2102—ab
acute, 372; (Cullen's sign) [Fallis] 617—ab
PANIC, publicity and polio, 957—E
PANNICULITIS, Weber-Christian disease, [Bailey] *1419
PANTOPON, analgesic action, [Hayman & Fox] *1813
"Roche," Council report, 1813
PAPAVERINE Hydrochloride: See Foot gangrene
PAPILLOMA, cutaneous, [Wise] 1486—ab
PARA-AMINO BENZENE SULFONAMIDE: See Sulfanilamide
PARABIOSIS, vascular, sex hormones and cancer, [Murray] 903—ab
PARAFFIN: See Medicolegal Abstracts at end of letter M
Embedding: See Sputum
PARALYSIS: See also Hemiplegia; Medicolegal Abstracts at end of letter M
after giving diphtheria antitoxin, 154
agitans, drugs for: stramonium, scopolamine, and atropine, 976
agitans, heredity, 1283—E
agitans, Macht's cobra venom for, 452
barbital (side actions), 508—E
diaphragmatic, after tuberculous changes, [Müller] 320—ab
Diphtheritic: See Diphtheria
facial, peripheral, [Pasmelon] 1587—ab
facial, relapsing alternating peripheral, [Viole] 742—ab
Infantile: See Poliomyelitis
infectious, in chickens; relation to poliomyelitis, 144
Jamaica Ginger: See Neuritis, peripheral
of Ocular Muscles: See Eyes, paralysis
peripheral, after (typhoid vaccine injection, [Robinson] 168—ab
phrenic, in subdiaphragmatic infection, [Coope] 1586—ab
radial, after burns, [Babbs] 630—ab
Respiratory: See Respiration
"shuffle foot," 1930
spastic, [Barker & Ford] *785
spastic (Little's disease), ankle clonus in infant at 3 months, 1835
wood tick, in children, [Barnett] *846
PARALYSIS, GENERAL: See Dementia Paralytica
PARATHYROID Extract: See Dystrophy, muscular; Osteo-Arthritis, treatment
hyperfunction, relation to renal calculi, [Randall & others] *1701
osteitis fibrosa cystica, [Eger] 2025—ab
renal hyperparathyroidism with Cushing's syndrome, [Pons] 1671—ab
PARATYPHOID B epidemic in Liverpool, [Fraser] 1491—ab
bacteria in skin lesions, [Fasting] 1581—ab
bacteria (killed) intravenously in undulant fever, [Ervin & Hunt] *1966
carrier survey in institution, [O'Callaghan] 1081—ab
PARESTHESIA: See also Acroparesthesia; Skin hyperesthesia
of face, 155
PARIS: See also University of Paris
Exposition, (International Medical Days during) 59; (exhibits, meetings) 286; (model village), 1249
Medical School: See Faculté de Médecine
PARISOT, JACQUES, 145
PARKINSONISM: See Encephalitis, Epidemic
PAROTITIS, epidemic, brain disorder after, [Johansen] 244—ab
PARROTS: See Psittacosis
PASSIVE Vascular Exercise: See Blood Vessels
PASTEURIZATION: See Milk
PATCH Test: See Tuberculin
PATELLA, displacement, joint changes from, [Bennett] 537—ab
hypoplastic in hereditary syndrome, [Montant] 541—ab
PATENT MEDICINES: See Nostrums
PATENTS: See also Medicolegal Abstracts at end of letter M
medical, [Fishbein] *1539; [Scarlet Fever Committee] 1833—C
PATERNITY: See also Medicolegal Abstracts at end of letter M
blood group tests for nonpaternity, 1929
PATHOLOGISTS, impostor impersonates, 1552
PATHOLOGY: See also Specimens; Index to Organization Section
German Society of, 2152
PATIENTS: See also Hospitals; and under specific diseases as Diabetes Mellitus; Tuberculosis; Index to Organization Section
History: See Case records
patient himself, 2144—E
Record Book: See Venereal Disease
PATTERSON Institute for Cancer Research, Chicago, 1993
PAUL, CHESTER E., suspended sentence, 214
PAULIAN, DIMITRIE, elected to Rumanian Academy of Sciences, 62
PEACE, International Campaign, 1918
PEACH, dried, intestinal obstruction from, [Andrews & Walker] *431; [Nettelroth] 1295—C
PECTIN as antiseptic, 1288—E
PEDIATRICS, American Board of, examinations, 284
PEDIATRICS—Continued
grip as seen in practice of, [Aldrich] 1760—ab
International Congress meet in 1940 in U. S., 39
Marriott Memorial Fund, 1132
PEDICULOSIS, delousing with sulfur anhydride vapors, [Leballly] 1942—ab
PELLAGRA, cardiovascular symptoms in, [Weiss & Wilkins] *791
porphyrinuria in, [Beckh] 1406—ab
retrobulbar neuritis in, [Fine] 904—ab
survey, Arkansas, 1131
treatment, bismuth and neoarsphenamine not indicated, 455
treatment, nicotinic acid amide, 1203—E; [Smith & others] *2054; [Smith] 2086—C; [Funk] 2086—C
treatment, stomach preparations, [Petri] 1322—ab
PELVIS, contracted, vs. antepartum care, [Tamis & Clark] *197
effect of fall on, 71
heating, Lepel Short Wave Diathermy Machine, 1364
obstetric pelvimetry, 1745
roentgenography by lateral exposure, [Reichenmiller] 1095—ab
tumors, effect of injury on, 2161
PEMPHIGUS, bullous impetigo or toxic erythema? 1383
treatment, Germanin (Bayer 205); cortical necrosis of adrenal after, [Wells & others] *1990
PENIS: See also Foreskins; Priapism
Crisis: See Tabes Dorsalis
leukokeratosis, surgery for, [Hansen] 322—ab
plastic induration, 300; (after gonorrhea) 2089
tumors (malignant) in children, [Campbell] *1609
vesicles on, 381
PENITENTIARIES: See Prisons
PENOR'S (Dr.) Regulator Pills, 1560—BI
PENNSYLVANIA: See Index to Organization Section
PENSIONS: See Index to Organization Section
PENTANONE, industrial hazard, [McConnell] *745
PENTOBARBITAL SODIUM, Abbott (Neubutal); commercial monopoly of name, 504
Lilly, dosage forms accepted, 1365
narcotic habit from taking, 527
PEPSIN, activity, studied by double histamine test, [Rivers] 903—ab
PEPTIC ULCER: See also "Ulcers" under Medicolegal Abstracts at end of letter M
absent in pernicious anemia, [Kahn] 1755—ab
asymptomatic scurvy and wound healing, [Ingalls] 1489—ab
complications; treatment, [Kruse] *868
etiology, tissue defense in, [Carlson] 312—ab
etiology, trauma, 1220
food allergy with, "leukopenic index," [Long] *23
gastroduodenal and amino acid metabolism, [Herfort] 1761—ab
gastroduodenal, in Japan, [Tomoda] 1766—ab
hemorrhage, complication demanding treatment, [Abell] *1243
hemorrhage from duodenal, x-ray diagnosis, [Hampton] 2096—ab
hemorrhage from gastric, diet unrestricted, [Meulengracht] 2025—ab
hemorrhage in Meckel's diverticulum, [Thompson] *939
nostrum, Udga Tablets, 605—BI; 1925—BI
pepsin activity in, double histamine test of, [Rivers] 903—ab
perforated acute, [Chang] 2171—ab
perforation, complication demanding treatment, [Abell] *1243
perforation of duodenal causes pylephlebitis, [Roberts & Hadler] *1629
perforation of gastroduodenal, [Sosnyakov] 1678—ab
pyloric (true), [Garin] 1237—ab
surgical treatment, partial gastrectomy for gastric or duodenal, [Marshall & Kiefer] *1341
treatment, diet, decaffeinized coffee and denicotinized tobacco in, [Bernay] 1942—ab
treatment, histidine, [Upham & Barowsky] *422; [Königsberg] 396—ab; [Fürth] 1677—ab
treatment, histidine, blood clotting time after, [Bloch & others] *204
treatment, nasal tube gastric suction, alkalosis and death after, [Taylor] *267
treatment, roentgen, of spinal cord centers, 60
treatment, sodium bromide and atropine sulfate, [Landau] 1858—ab
treatment, tryptophan, [Fürth] 1677—ab
PEPTONE, lactopeptone parenterally effect, [Milles] 1074—ab
PERBORATE: See Sodium perborate
PERCHLORETHYLENE: See *tetra*Chloroethylene
PERIARTERITIS nodosa, eosinophilia in, 453; (reply), [Sandler] 977
PERICARDITIS: See also Pick's Syndrome
[Shipley] *1017
adhesive, causing cardiac compression, x-ray diagnosis, [Freedman] 821—ab
adhesive (chronic fibrous), [Lassen] 473—ab

PERICARDITIS—Continued
adhesive, section of left phrenic nerve for, [Martin] 1491—ab
suppurative, drainage by removing costal cartilage, [Cottam] 1926—C
PERINEUM, surgery, vesical dysfunction after [Hill & others] *1184
PERITONEUM: See also Pneumoperitoneum
effect of mineral oil poured into cavity during operation, 731
Injection into: See Blood Transfusion
protection against infection: Steinberg method, 1457—E
PERITONITIS, acute syndrome as hypersensitivity reaction, [Melchior] 1764—ab
biliary, 1053
complications, complete heart block [Swift & Smith] *2038
lymphatic absorption in, vs. anesthetics, [Mengle] 166—ab
perforation of gastro-intestinal tract, [Bergh] 1078—ab
pneumococcus, in childhood, [Mundorff] 1859—ab
pneumococcus, treatment, [Koch] 472—ab
PERMANENT WAVE: See Hair
PEROXIDE of Hydrogen: See Hydrogen
PERSONALITY of stutter-type child, [Greene] *187
shut-in type, 1687—ab
PERSPIRATION: See Sweating
PERTUSSIS: See Whooping Cough
PESSARIES, gold stem, trauma and infection from, [Choisser & Notes] *1628
PETROLATUM block (depressed) to secure blood for analysis, [Abrahamson] 1402—ab
Liquid: See also Rectum, hemorrhage
liquid, mineral oil in foods; effect on vitamin A utilization, Council report, 1814
liquid, poured into peritoneal cavity during operation, effect, 731
Pomay 11 7, 1142—BI; (correction) 1373
PETROLEUM, crude, for abrasions, 1300
distillates, Shell's Kleenzit, 1658
hydrocarbons, industrial hazard, [McConnell] *764
PEWTER, lead poisoning in Chinese, [Yang] 911—ab
PEYRONIE'S Disease: See Penis, plastic induration
PFEIFFER'S Hamburg Tea, 1832—BI
Sore Throat Remedy, 2005—BI
PHARMACEUTICAL Conference, British, 721
firms, dangerous promotion by detail men, [Richter] 1926—C
PHARMACISTS: See also Medicolegal Abstracts
at end of letter M
national statute, Germany, 370
number, Japan, 2154
PHARMACOPEIA, Italian, synthetic camphor in, 2152
U. S., and the physician (use of expectorants); [Brown] *268; (use of calcium; choice of calcium salt), [Aub] *1276; (use and abuse of ergot and posterior pituitary), [Davis] *1631
U. S. XI Supplement released, 595
PHARMACY, A. M. A. Council on: See American Medical Association
"chain store," campaign against, Australia, 1656
PHARYNX: See also Nasopharynx
Abscess: See Abscess, retropharyngeal
buccopharyngeal sepsis in typhoid, [Orgaz] 396—ab
tuberculous ulcers, [Ormerod] 1856—ab
PHENOBARBITAL addiction, danger of inducing, 2161
contraindicated in parkinsonism, [Ziskind & Ziskind] *20
Treatment: See Epilepsy
PHENO-CRESAN, 1560—BI
PHENOL compounds, industrial hazard, [McConnell] *764
PHENOLPHTHALEIN, toxicity, [Soper] 294—C
PHENYLETHANOLAMINE, chemical formula, *2065
PHENYL-ETHYL Hydnocarpate Treatment: See Lupus vulgaris
PHENYLETHYLAMINE, chemical formula, *2065
PHEOCHROMOCYTOMA, [Wells & Boman] *1176
PHLEBITIS: See also Pylephlebitis; Thrombophlebitis
treatment, roentgen, [Henschen] 175—ab
PHLEGMON: See Intestines inflammation
PHOSGENE, consumption of food contaminated with, 1291
PHOSPHATASE in Blood: See Blood Test: See Milk, pasteurization
PHOSPHATES, rôle in calcium metabolism, [Aub] *1278
PHOSPHATIDE Lipoidosis: See Lipoidosis
PHOSPHOR, 1653—BI
PHOSPHORUS and intestinal flora, 1638—E
ratio of diet, effect on degree of rickets produced, 30
PHOTO-ELECTRIC Colorimeter: See Blood, carotene
PHOTOGRAPHY: See Stomach; Telecord
PHOTOSENSITIVITY: See Light sensitivity
PHRENICECTOMY: See Nerve, phrenic; Tuberculosis, Pulmonary
PHYLLIS Brand Evaporated Milk, 359
PHYSICAL DEFECTS: See Crippled; Handicapped
PHYSICAL EDUCATION: See also Athletics; Exercise
American Association for, 262—E
campaign launched by prime minister, England, 216; 1374; 1465; 2078
fitness, for military service, Germany, 1737
in New Zealand, 221
in schools, Belgium, 372; 1922
in schools, Japan, 289
International Congress of Medicine as applied to (first), 1137
medical control, Congress of Sport Physicians discuss, 1292
on a national scale, Japan, 1921
PHYSICAL EXAMINATION of all Osaka citizens, Japan, 1921
of applicants for marriage, Michigan, 1049
of applicants in transportation services, Paris, 1554
of first year medical students, Paris, 1375
of food handlers, ordinance requires, Maine, 53
of school children, [Rogers] *842
reconstruction of substandard recruits in British army, 591—E
PHYSICAL EXERCISE: See Exercise
PHYSICAL MEDICINE, Academy of, 1287
New England Society of, 1829
PHYSICAL THERAPY: See also Diathermy; Massage; Roentgen Rays; Ultraviolet Rays; etc.
American Congress of, 883
A. M. A. Council on: See American Medical Association
New England Society, changes name, 1820
technicians, schools approved for, by A. M. A., *708
PHYSICAL TRAINING: See Physical Education
PHYSICIANS: See also Economics, Medical; Education, Medical; Ethics, Medical; Licensure; Medical Service; Medicine, practice; surgeons; etc.; Index to Organization Section
American College of Chest Physicians, new name, 514
atrocations, (hobby exhibit at New Jersey state meeting) 365; (medical minstrels, New York) 439; (Dr. Cronin as novelist) 956—E
Committee of (self-appointed) proposals on state medicine, 1280—E; 1728—E; 1816—E
Deaths: See list of deaths at end of letter D
England's coroners to be, 515
Federal Regimentation: See Medicine, state
Foreign: See Graduates, foreign; Licensure
Gesellschaft der Aerzte, Vienna, centenary, 446
Heroes: See Heroes
impostor impersonates, 1645
in politics, (Dr. A. R. Miller mayor for 25 years) 364
income, (method of establishing, Rumania) 61; (estimate of life earnings) 294
indigent, Physician's Social Aid, Germany, 518
insurance (health) societies consultants, Germany, 444
insurance (life), 216
Jewish: See Jews
library habit, 1702—ab
Martyrs: See Martyrs
monuments to, Dr. S. C. Thomson, 439
of the future, Lord Horder on, 1824
panel, graduate courses for, England, 966
positions open for, (serologist and medical director Arkansas) 363; (district health officers, Illinois) 592; (school medical supervisor, New York) 718; (C. C. C.) 1917
practicing, education, 597
practicing; family practitioner; success dwells in the silences, 837—ab
Rural: See also Physicians, supply
rural, Bingham's gift for medical center, Massachusetts, 717
skeptical of authority, 1631—ab
sport, first Congress of, 1292
state (the) and, Italy, 1213
supply, Germany, 1826
supply, rural, Rumanian Medical Association, 725
U. S. Pharmacopeia and, (expectorants) [Brown] *268; (calcium and choice of calcium salt) [Aub] *1276; (ergot and posterior pituitary) [Davis] *1631
Veteran: See also under names of individuals as Abel; Bleuler; etc.
veteran, honored, Massachusetts, 214
Vienna's World War memorial to, 680
women, Jacobi fellowship for, 594; 1823
women, statistics, *669
PHYSIOLOGY, International Congress (sixteenth) 1733
Moscow Institute of, monthly bulletin on work, 60
PHYSIQUE: See Constitution
PICK'S DISEASE: See Brain atrophy
PICK'S SYNDROME, treatment, cardiolysis (Brauer's operation) for, [Turner & Moore] *25
PICK-NIEMANN'S DISEASE: See Niemann-Pick's Disease
PICRI Stringent, 1560—BI
PICROTOXIN: See also Amytal poisoning
antagonistic to barbiturate, [Krantz] 2019—ab
PIGMENTATION: See Epithelioma
PILLOWS, Sleepwell Golden Floss, 1723
PILOCARPINE, paralyzed pupil respond to, 1839
PINEAL BODY, relation to adrenal cortex, [von Kup] 2025—ab
PINEAPPLE, brands accepted, 133; 277; 359; 587; 1043; 1127; 1815
PINERVA Pine-Needle Bath Salts, etc., 449—BI; 1060—BI
PINKHAM'S Tablets, 1832—BI
PINWHEEL for neurologic examination, [Wartenberg] 1294—C
PINWORMS Infestation: See Oxyuriasis
PISO'S in new raiment, 449—BI
PITRESSIN (beta-hypophamine) in laparotomies, [Reed] 84—ab
to control and relieve distention, [Frazier] 389—ab
PITUITARY, anterior, effect of hormones on, 1637
anterior extract, effect on carbohydrate metabolism, [Lassen] 2110—ab
anterior hormone action on vasomotor center, [Selligson] 1768—ab
Anterior Hormone (gonadotropic): See Gonadotropic Principles
anterior hormones, standardization, [Collip] 462—ab
anterior, therapy, clinical results in children, [Jacobsen & Cramer] *101
blindness, [Pesme] 1942—ab
cachexia with idiopathic steatorrhea, [de Langen] 398—ab
changes after thyroidectomy, [Altschule] 1938—ab
Cushing syndrome with renal hyperparathyroidism, [Pons] 1671—ab
disorders, skin shrinkage in obesity, 381
hematopoietic hormone in, [Flaks] 1407—ab
hormones, discussed at International Medical Days, 1210
irradiation for menopause disorders, [Zollinger] 1157—ab
posterior, antidiuretic hormone of, 1545—E
posterior extracts cause of uterus rupture, [Junghans] 92—ab
posterior, solution for herpes of eye, 976
posterior, solution for urticaria gigantea perstans, [Rosenberg-Schauss] 541—ab
posterior, solution prolong action, by giving metal salts, [Dodds] 1318—ab
posterior, use and abuse, [Davis] *1631
PLACENTA, Blood Coagulant Extract: See Hemophilia
calcification from using viosterol in pregnancy, [Brehm] 1490—ab
expulsion, procedure in third stage, [Montgomery] 744—ab
Extract: See Measles
hemorrhage (apoplexy) 1999
infection, in induced labor, [Penfold] 1236—ab
praevia, roentgen diagnosis, [Robecchi] 318—ab
spirochetes in, 1046—E
PLAGER, MAX, blood pressure business, court upholds, 512
PLAGUE, human, (Nevada) 214; (fatal case, California) 1205
infected fleas, how wide spread? Danger of handling ground squirrels or pelts? 1064
infection in ground squirrels, (Oregon) 54; (Nevada) 1206; (Montana) 1285; (Utah) 1286; (California) 1819; 2073
infection retained by insects at least 10 months, 1131
PLANT: See Pollen; Rhus; Seeds; Weeds
Gas Plant: See Dictamnus albus
PLANTAIN hay fever (correction: English and Rugel's plantain) [Blumstein & Tuft] 606
PLASMA: See under Blood
PLASMOCHIN Treatment: See Malaria
PLASMODIA: See Malaria
PLASTER, Adhesive: See Adhesive
cast, metal channels facilitate removal, [Prosperi] *1448
shells (molded) of cellulose acetate mixture for poliomyelitis, [Bennett & others] *1120
PLASTIC Surgery: See Surgery
PLATELETS: See Blood
PLATING: See Chromium; Copper; Metal
PLEURA "ascites," [Goodman] *1980
changes after irradiating extrathoracic tumors, [Holch] 822—ab
effusions (massive) in artificial pneumothorax, [Rosenblatt] 1849—ab
effusions, treatment, 245; 721
injecting gold salts into, in pulmonary tuberculosis, 442
shock, air embolism vs. pleural reflex as cause of, [Cappa] *852
PLEURISY, lamellar, in infants, marginal x-ray shadows in, [Miglior] 90—ab
PLEURODYNIA: See Myositis, epidemic
PLEXUS: See Celiac Plexus
PLUMBING, brass, 2002
PLUMS, Sexton Brand, 31

V 1 193

PNEUMATIC Tools: See Air, compressed
PNEUMOCOCCUS, Antipneumococcic Serum, Type I (Squibb) 875
Antipneumococcic Serum, Types V and VII-Lederle, Council report, 875
antiserum distribution, (New York) 1915; (Mass.) [Chadwick] 1926—C
endocarditis, 1743
infection, quinine in, [Kemkes] 996—ab
infection, sulfanilamide and serum therapy, [Branham] 312—ab
infection, sulfanilamide effect on, [Bliss & Lond] *1524
infection with type I, effect of Edwenil on, [Stainsby & Shultz] *273; 280—E
Meningitis: See Meningitis
Peritonitis: See Peritonitis
Pneumonia: See Pneumonia
type III mastoiditis, intracranial complications, [Goldman & Herschberger] *1254
type III septicemia, prontosil soluble for, [Millett] *2138
type V pneumonia, [Rosenblüth] 1850—ab
types (various), occurrence, [Goldstein] 2057—ab; [Bullowa] 2062—ab
typing facilities, 1910—E
vaccines, skin reaction to, [Weil] 1232—ab
PNEUMOCONIOSIS: See also Medicolegal Abstracts at end of letter M
asbestosis, silicosis, etc., [Lynch] *1974
bentonite dust, 1656
in Belgian coal miners, 602
silicosis, pathology of lungs and other organs in, [Matz] 1233—ab
silicosis symposium, N. Y., 594
tuberculosis in silicosis, incidence, [Pope] 79—ab
PNEUMOGRAPHY: See Brain tumors
PNEUMOLYSIS: See Tuberculosis, Pulmonary, artificial pneumothorax in
PNEUMONIA: See also Bronchopneumonia; Medicolegal Abstracts at end of letter M
Advisory Committee on U. S. Public Health Service appoints, 1997
blood serum in, vitamin A content, [Lindqvist] 1861—ab
cedar poisoning of lungs predisposes to, 1744
clinic: showing case of type I pneumonia, [Kohn] 2061—ab
complications, complete heart block, [Swift & Smith] *2035
control program, (New York) 718; 882; (Pennsylvania) 882
croupous, serum treatment, [Nissen] 1322—ab
diagnosis, 1062: (early clinical) [McCann] 2056—ab; (bacteriologic) [Goldstein] 2057—ab
Friedländer bacillus infections, [Baehr] 535—ab
in old age, respiration and heart action normal, 155
Institute, New York, 1049; 1550; (abstract of proceedings) *2056
laboratory service extended, Conn., 1819
lipoid, and oil in lungs, 1367—E
mortality, 1910—E
reports, prize awarded, New York, 1643
Serum: See Pneumococcus antiserum; Pneumonia, treatment
sputum, pneumococcus types in, [Nissen] 1240—ab
survey (5 year), Massachusetts, 139
treatment, [Bullowa] 2061—ab
treatment, Antipneumococcic Serum, Types V and VII—Lederle, Council report, 875
treatment, expectorants, [Brown] *268
treatment, liver extract parenterally in, [Wilson] 389—ab
treatment, oxygen, (inhalation) 524; [Bullowa] 2058—ab; (injection) 1383
treatment, quinine, [Kemkes] 996—ab
treatment, serum, 1062; [Nissen] 1322—ab; (New York Academy report) [Cecil & others] *1323; [Cole] 2059—ab; [Bullowa] 2062—ab
treatment, sulfanilamide, [Heintzelman] 389—ab; [Millett] 1945—ab
treatment, transfusions in primary form, [Arena] 741—ab
tularemic (bilateral), roentgen study of nonfatal case, [Blackford & Archer] *264
tularemic from handling tick infested sheep, [Winter & others] *238
type V pneumococcus, [Rosenblüth] 1850—ab
"unresolved," 1565
unresolved, (positive Wassermann test in) 1300, (reply) [Robertson] 1839
PNEUMONOCONIOSIS: See Pneumoconiosis
PNEUMO-NOX, 2005—Bl
PNEUMOPERITONEUM, 895
treatment after puerperium in pulmonary tuberculosis, [De Michelis] 995—ab
treatment of pulmonary tuberculosis, [Trimble] 886—ab
PNEUMOTHORAX, effect on normal lung in skin tuberculosis, 1920
from experimental overinflation of lung, 959—E; [Macklin] 1479—C
insufflator, [Tenenbaum] 1410—ab
spontaneous, benign, 442; 1376
spontaneous, in childhood, [Winsler] 2023—ab
spontaneous, unusual forms, [Castex] 994—ab
PNEUMOTHORAX, ARTIFICIAL: See also Tuberculosis, Pulmonary, artificial pneumothorax in
accidents resulting from, [Poix] 395—ab
air embolism to spinal cord after, [Wikler & others] *430
blood picture and sedimentation reaction after, [Mourier] 1768—ab
extrapleural, [Hautefeuille] 541—ab
PODOPHYLLUM, sensitivity to? 155
POISONING: See also Carbon Monoxide; Industrial; Lead; Methyl Chloride; Potassium permanganate; etc.; Medicolegal Abstracts at end of letter M
isolating organic poisons from viscera, rapid method, [Stewart] 2104—ab
POLIOENCEPHALOMYELITIS due to botulism, [Schwartz] 620—ab
POLIOMYELITIS, acute anterior, campaign against, Germany, 601
acute anterior, early diagnosis, [De Mattia] 913—ab
acute anterior, in chimpanzees, 2082
acute anterior, injury vs. localization of paralysis, [Parker] 1404—ab
acute, relation of paralytic form of infection in chickens to, 144
cerebral ataxic form, [Glanzmann] 1859—ab
chronic, [Steegmann] 1312—ab
diagnosis, erroneous, 2152
encephalitis (epidemic) in those who have had, [Klimke] 1494—ab
epidemics (1931-1936), [Stender] 1589—ab
epidemics, (Oklahoma) 365; (Arkansas) 437; (Mississippi) 512; (in boy scout camp) 592; (in U. S.) 595; 600; 883; (Australia) 966; (Ontario) 801; 883; 1552; (Victoria) 1290
immunity (active and passive), prevention, and portal of entry (nose vs. gastro-intestinal tract), [Toomey] *402
immunization, ricinoleated vaccine, [Kolmer] 237—ab
immunization, use of therapeutic serums after onset of paralysis, 1063
National Foundation for Infantile Paralysis, 1997
panic, publicity and, 957—E
orthopedic service for paralysis victims, 2077
President's birthday celebration funds for, 1051; 1997
prevention, nasal sprays (zinc sulfate or picric acid-alum) 958—E; [Harmon] 1061—C; Lodlum] 1142—C; (Connecticut) 1381—C; (Canadian experience) 2072—E
transmission to animals, [Kolmer] 1156—ab
treatment, after-care, 729
treatment, end results of Drinker respirator, 1130—E
treatment, laryngoscopy, intubation and oxygen insufflation to tide over fatal period, before respirator [Flagg] 1216—C; [Brahdy] 2006—C
treatment, molded plaster shells, [Bennett & others] *1129
treatment, short waves, 1139
treatment, vitamin C, [Jungeblut] 1758—ab
vaccine (Kolmer's), 1062
vitamins in relation to, [Toomey] 77—ab
POLITICS, Physicians in: See Physicians
POLLEN Allergen Solutions-Squibb, 1454
antigens, improved; alcoholic fractionation (or purification), 280—E
Antigens-"National," 1543
Extracts: See also Hay Fever treatment
Extracts-Mulford, 209
patients sensitive to, but not to seeds of same plant, 278—E
POLYARTHRITIS: See Arthritis
POLYCYTHEMIA, fundus lesions in, [Cohen] 79—ab
vera, unusual forms, [Seggel] 1409—ab
POLYNEURITIS: See Neuritis
POLYPEPTIDES in Blood: See Blood
in Spinal Fluid: See Cerebrospinal Fluid
POMAY II 7, 1142—Bl; (correction) 1373; (Constitutional effect of salicylic acid in ointment) [Reed] 1654—C
POMPHOLYX between fingers, 227
PONTOCAINE Hydrochloride, N. N. R., 433
POPULATION: See also Vital Statistics
decrease, France, symposium on, 885
menace of British depopulation, 1638—E
problems of, interrelated to obstetrics, 1828
supply and demand, 1726—E
PORPHYRIN in Feces: See Feces
in Urine: See Urine
PORTAL VEIN: See also Pylephlebitis
obstruction with ascites, enterectomy in, [Fuller] 1316—ab
quickest and best treatment for ascites in person past 60, 1566
POSITION: See Posture
POSTOPERATIVE Complications, etc.: See Surgery
POSTURE defects in arthritis, [Hartung] 2099—ab
effect on blood pressure, [Wald] 1485—ab
effect on cardiac output, [Sweeney] 1847—ab
effect on electrocardiogram, [Erkelens] 1678—ab
Fetal: See Labor presentation
lateral position effect on rest of lung in normal, [Vaccarezza] 1703—ab
POSTURE—Continued
physical reconstruction of substandard recruits in British army, 591—E; 2150
prone, value in sea and automobile sickness, [Tobler] 2172—ab
POTASSIUM Arsenite: See Leukemia, myelogenous
chlorate in dentifrices, 455
permanganate poisoning fatal, [Johnston] 1761—ab
POTENCY: See Fertility
POTT'S DISEASE: See Medicolegal Abstracts at end of letter M
POULTON, EDWARD, surveyed controversy on evolution, 1135
POWDER: See Gunpowder; Talcum Powder
POWERS Asthma Relief, 1925—Bl
PRACTICE of Medicine: See Medicine, practice; Physicians, practicing
PRACTITIONERS: See Physicians
PRECIPITIN serum for testing for human blood, 896
PRECISION PILLS; Rheumatic Relief Tablets, 1925—Bl
PREGNANCY; See also Abortion; Eclampsia; Embryo; Fetus; Labor; Maternal; Puerperal Infection; Puerperium
after irradiation and ovarian tumor, 1836
after menopause, cases, 528
blood changes in, 886
complications, arthritis subsides, 2161
complications, chronic purpura haemorrhagica, 1146
complications, diabetes mellitus (slight glycosuria), 1745
complications, gallbladder perforation, [Stone] *1903
complications, gonorrhea, sulfanilamide for, 527
complications, heart disease, [Consoli] 242—ab
complications, hypertension, prognostic value of cold test, [Bridges] 295—ab
complications, hyperthyroidism, primary thyroid hyperplasia in one stillborn twin, [Warren & Shpiner] *575
complications, myocardial infarction, [White & others] *863
complications, polyneuritis, 527
complications, pulmonary tuberculosis, [Infantozzi] 470—ab
complications, retinitis, [Duggan] 2104—ab
complications, Taenia saginata infestation, anthelmintics during, 1658
diagnosis, chemical, [Patterson] 1673—ab
diagnosis, chemical, Friedrich's modification of Visscher-Bowman's test, 812
diagnosis, intradermal test with antultrin-S, [Schneider & Cohen] *115
diagnosis, synergtial reaction, [Cholsser & Notes] *1628
extra-uterine, ruptured, [Abell] *1243
hygiene, antepartum care; advantages; shortcomings, [Tamis & Clahr] *195
in adipose primiparas, [Muller-Christensen] 1678—ab
last longer than formerly? [Wahl] 177—ab
liver function and dihydroxyacetone, [Dietel] 1944—ab
Multiple: See Quintuplets; Twins
nutritional needs in, 598
syphilis in, 299; 451; (replies) [Davies] 977; (Cormia) 1063
syphilis in, spirochetes in placenta, 1046—E
syphilis in, Wassermann reaction in placental blood, [Mackay] 1584—ab
syphilis, treatment in, [Cole] *580; 1145
teeth caries in, effect of calcium and vitamin D, (reply) [Gordon] 733
toxemia, [Tamis & Clahr] *196; (late) [Young] 314—ab; 586—E
tumors (malignant) and, [Smith] 1847—ab
ureter motor functions in, [Cordaro] 914—ab
urine hormone, treatment of syphilis, 1931
vitamin used in, danger of placenta calcification, [Brehm] 1490—ab
vitamin C deficit during, [Gachtgens] 470—ab
vomiting of, 1474; [Ohligmacher] 1944—ab
weight changes during and after, [McIlroy] —ab
weight (loss of) in, 1658
work (factory) in relation to, 722
PRELARYNGEAL GLAND, pathology, [Collet] 1092—ab
PREMEDICAL Education: See Education, Medical
PRESCRIPTION: See also Index to Organization Section
No. 69, 1832—Bl
PRESS: See Newspapers
PREVENTIVE MEDICINE, Industrial, [Bristol] *245; [Selby] *1167
fight against disease through the ages, 2081
PRIAPISM, epidural injections for; technic, 1145
PRIDE of the Farm Tomato Juice, 587
PRISONS, medical services, Institute of Medicine of Chicago survey, 1548
syphilis in penitentiaries, 1062
PRIVILEGED COMMUNICATIONS: See also Medicolegal Abstracts at end of letter M
Brussels physicians protest a judicial confiscation of patients records, 605

PRIVILEGED COMMUNICATIONS—Continued professional secrecy and social Insurance, France, 517
PRIZES: Alvarenga, for 1938, 1732
American Academy of Ophthalmology and Otolaryngology award, 1917
American Association of Obstetricians, Gynecologists and Abdominal Surgeons (new), 1916
Bernard (Leon), 1375
Bigelow Medal, 142
Bouilland, 291
British Medical Association gold medal, 1555
Burdick (Ward), 56
Capps (Joseph A.), 438
Casselberry, 719
Central Association of Obstetricians and Gynecologists, 1641
Chandler Medal, 1206
Cleveland (Clement) Medal, 1371; 1644
Comstock, 1823
Duchenne Academy, 441
French Society of Dermatology and Syphilology, 965
Harben gold medal, 217
Hardman Loving Cup, 52
Hart (Violet) Medal, 1642
International Union Against Tuberculosis, 217
Keyes gold medal, 284
Lafayette, Louisiana civic cup to Dr. L. O. Clark, 53
Long (Crawford W.), 52
Medical Association of South Africa, 1377
New York State Department of Health, 1643
Nichols (William H.) Medal, 1994
Nobel, to Albert von Szent-Györgyi, 1733; 1912—E: 2153 (German substitute for) 2002
Prince Albert of Monaco, awarded, 59
Smith (Theobald), first award, 366
Snow (William F.), first presentation, 2075
South Africa Medical Association gold medal, 61
Stacey (James E.) 364
Trudeau Medal, 55
PROCAINE HYDROCHLORIDE: See also Anesthesia
solution, ampoules, N. N. R., 1365; 1543
Treatment: See Chorea
PROCTITIS: See Rectum Inflammation
PROFESSIONAL SECRECY: See Privileged Communications
PROFESSORS, exempt from compulsory retirement, France, 58
PROGESTERONE-prolan mechanism, [Young] 314—ab
PROGYNON: See Estrogens
PROKOSCH, FREDERICK, THE SEVEN WHO FLED, 957—E
PROLACTIN, treatment of chronic cystic mastitis, [Lewis & Geschickter] *1894
PROLAN: See Gonadotropic Principles
PRONTOSIL Album: See Sulfanilamide flavum, agranulocytosis from, [Borst] 829—ab
soluble, intrathecal use in pneumococcus meningitis and septicemia, [Millett] *2138
substances, chemical formulas, 1725
treatment of quartan malaria, [Van der Wielen] 398—ab
PRONTYLIN: See Sulfanilamide
PROPADRINE, chemical formula, *2065
Hydrochloride-Sharp & Dohme, 1279
PROPRIETARIES, question of commercial monopoly of name, 504
U. S. Food and Drug Administration to regulate blending compounds, 715—E
PROPYLENE GLYCOL, feeding experiments, [Holck] *1517
industrial hazard, 956—E
PROSTATE, condition, relation to impotence, 891
hypertrophy, androgen treatment, [Champy] 912—ab
hypertrophy, estrogen treatment, [Wugmeister] 628—ab; [Champy] 912—ab
hypertrophy, preoperative study, [Shivers] 1580—ab
hypertrophy, roentgen therapy, [Schneider] 997—ab
Inflammation: See Prostatis
resection (transurethral), residual urine after, 1930
tumors (malignant) in children, [Campbell] *1610
PROSTATITIS, chronic, treatment, 380; 2087
colon bacillus, 975
gonorrhea (possible) and, 1065
leg pains caused by? 2087
PROSTIGMIN: See Myasthenia gravis
PROTAMINE in immunization, 360
Insulin: Zinc Insulin: See Diabetes Mellitus
PROTEIN: See also Amino Acids; Meat; etc.
change, to carbohydrate, 2072—E
deficiency edema, [Boyer] 1854—ab
deficiency, effects on heart, [Weiss & Wilkins] *787
diet and nephritis, 1202—E; [Howard] 1654—C
fractions, new investigations, 1368—E
in Blood: See Blood
PROTHROMBIN: See Blood coagulation
PRUNES, acid and alkaline reaction in body, 70
PRURITUS, ani, [Tucker] 166—ab; (treatment) 1567
vulvae, treatment, 69; (also etiology) 1999
PSEUDARTHROSIS, nature; treatment, 146
PSITTACOSIS, made reportable, Maryland, 1285
three cases, New York, 1133
PSOITIS: See Muscles
PSORIASIS exfoliative dermatitis and, 153
treatment, autohemotherapy, [Barksdale] 1855—ab
treatment, salicylic acid in ointment, fatal, [Sonnicandro] 1160—ab; [Reed] 1654—C
PSYCHIATRY, American Board of, (tabulated data on certification), 42; 43; (examination) 1287
Congress of French Alienists and Neurologists (forty-first) 1054
Congress of German Psychiatrists, 2151
definition in, 228
element in criminal jurisprudence, 1657
fellowship available by National Committee for Mental Hygiene, 1552
infantile, first International Congress on, 1289
Kentucky Association organized, 1730
new edition, Indiana, 1132
Società Italiana di psichiatria, 371
Southern Association meeting, 1135
PSYCHOANALYSIS, American Association, meeting, 2076
PSYCHOLOGY, variations in univular twins, 370
PSYCHONEUROSIS: See also Neurosis
treatment, benzedrine sulfate, [Willour & others] *549; (Council report) *2064
PSYCHOSIS: See also Epilepsy, psychotic; Mental Disease
after atabrine treatment of malaria, 812
after using atropine, [Dameshek & Feinsilver) *561; (in eye) 1931
anemia (pernicious) and, [Herman] 1075—ab
heart rate unsteady, [Whitehorn] 823—ab
in hyperthyroidism, [Bram] 1233—ab; 2089
Korsakoff's: See Korsakoff's Syndrome
treatment, cerebral leukotomy, [Mattos Pimenta] 1—ab
treatment, theelin, [Ault & others] *1786
urea clearance test in, [Wyllie] 829—ab
war as a disease, 721
PSYCHOTHERAPY in gynecology and obstetrics, 1366—E
use of tests in, 2151
PSYLLIATE, Sodium: See Jaws
PTAQUILIM, treatment, quinine, [Robinson] 990—ab
PTOSIS: See Eyelids; Kidneys
PUBERTY: See Adolescence
PUBLIC HEALTH: See Health
PUBLICITY, panic and polio, 957—E
PUDDING, Ann Page Chocolate, 1127
PUERPERAL INFECTION, damages assessed for, 803
treatment, sulfanilamide, 515; 598
PUERPERIUM, complications, mastitis, prevention, [von Brücke] 1322—ab
complications, symptomatic steatorrhea, [Lundstedt] 854—ab
complications, "toxic" heart disease, [Hull] 82—ab
complications, tuberculosis, pneumoperitoneum for, [De Michelis] 995—ab
moving patient within first 24 hours after labor, 1745
use of oxytocic drugs in, [Davis] *1634
PUERTO RICO Medical Association, 1996
PULMOTOR for resuscitating new-born, [Henderson] 1561—C; [Hurlbut] 2157—C
PULP workers, sterility from sulfurous acid and chlorine, 378
PULSE, alternating, measuring blood pressure in, 1747
popliteal artery, method of obtaining, 451
radial, and transfusion, [Fourestier] 913—ab; 1587—ab
volume in cervical rib, 70
PUNCTURE: See Edema; Ganglions
PUNISHMENT of children, 1137
PUPILS Dilatation: See Mydriatics
paralyzed, response to pilocarpine, 1839
PURECO Carbonic Acid Gas, N. N. R., 1365
PURINE Derivatives: See Angina Pectoris, treatment
PURITAN Brand Lard, 1043
PURKINJE, JAN, sesquicentennial, 285
PURPURA, eruption after sulfanilamide, [Schonberg] *1035
fulminans (Henoch), [Glanzmann] 1408—ab
haemorrhagica, 528
haemorrhagica after sedormid, [Kramer] 632—ab
haemorrhagica (chronic) complicating pregnancy, 1146
haemorrhagica, course; treatment, [Wintrobe & others] *1179
haemorrhagica cured with botanical flavons (P vitamins), 2154
haemorrhagica, liver, fresh bone marrow and calcium for, [Verrhoet] 1240—ab
haemorrhagica (thrombocytopenic), peculiar form, [Keil] 540—ab
in gonococcic septicemia, [Hazel & Snow] *1275
menstrual, [Smith] 1760—ab
with hemophilia-like disorder in coagulation, [Tschopp] 751—ab
PUTTKES and Buerger's disease, 228
PYELITIS, acute, late effects in girls, [Wharton & others] *1597
treatment, mandelic acid, in child aged 3, [Helmholz] *1040
PYELOCYSTITIS, B. coli, agranulocytosis after prontosil flavum treatment, [Borst] 829—ab
PYELOGRAPHY: See also Ureteropyelography
descending, in renal contusions, [Di Malo] 176—ab
study of gynecologic lesions effect on urinary tract, [Kretschmer & Kanter] *1097
subcutaneous, in children, [Travis] 236—ab
PYELONEPHRITIS, B. proteus, [Hirsch & Shapiro] *937
chronic, and arterial hypertension, [Butler] 2099—ab
PYEMIA, actinomycosis with, [Spangenberg] 91—ab
PYLEPHLEBITIS from perforating duodenal ulcer, [Roberts & Hadler] *1629
PYLORUS spasm and stenosis, [Knauer] 914—ab
stenosis (congenital hypertrophic), [Rowe] 1401—ab; (Fredet-Rammstedt submucous pyloroplasty), [Donovan] *558
PYOMETRA: See Uterus
PYORRHEA alveolaris and vitamin C, 797—E
PYRETHRUM ointment for scabies, 894
PYRIDIUM, urinary antiseptic, [Walther] *1001
PYROGEN, removal, by adsorptive filtration with Seitz filters, [Co Tui & others] *250
PYROL, 449—BI; 1741—BI
PYURIA, amicrobic, [Wildbolz] 168—ab
in new-born, [Miller] 746—ab
treatment, ammonium mandelate, [Wheeler] 2020—ab
urticaria relation to, 893

Q

"Q" fever in meat workers, Brisbane, [Derrick] 1586—ab
QUACKS: See also Nostrums; under names of specific individuals as Baker; etc.
campaign against, (Illinois) 1730; (New York) 1731; (France) 2150
International Committee to Combat Charlatanism, 1922
QUAKER Maid Brand Table Syrup, 1455
QUAN-DA-SAC, 1925—BI
QUARANTINE, ship, revised "radio pratique," 137—E
QUEENSLAND Medical School: See Schools, Medical
QUINCKE'S Edema: See Edema, angioneurotic; Urticaria
QUINIDINE not cause of rotary oscillation of eyeball, 610
prolonged use, amaurosis after, 1829
QUININE Bisulfate: See Keratitis
plus prostigmin in diagnosing myasthenia gravis, [Harvey] 1498—ab
Prophylaxis: See Influenza
systemic reactions to, 1299
toxic erythema or scarlet fever eruption? 1385
Treatment: See also Keratitis; Pneumonia
treatment, local, in ophthalmology, [Robinson] 990—ab
QUINTUPLETS, roentgen diagnosis in pregnancy, [Hamblen & others] *10

R

RABBIT Fever: See Tularemia
RABIES, 297
antivirus treatment of epilepsy, 381
immunizing dogs, 377
in Alabama, 1514—E
quarantine in King County, Wash., 284
treatment after dog bite, 455
treatment, calcium orally, [Fillion] 2172—ab
vaccines, Semple and Pasteur compared, 2088
virus, effect of guinea-pig passage on, [Hurst] 624—ab
RACES: See Indians; Negroes
RACKHAM Fund: See Foundations
RADIATION Therapy: See Gonorrhea
RADIO: See also Medicolegal Abstracts at end of letter M; Index to Organization Section A. M. A. broadcasts, New York City schools use, 1727—E
antinoise campaign, (Paris) 598; (New York) 1371
Baker (Norman) denied studio, 375—BI
Canada cleans up, 1546—E
Johnson (Hugh S.) commentator for Grove Laboratories, 716—E
medical service to ships at sea, center for, closed, Italy, 1378
National Conference on Educational Broadcasting (second), 719
ship quarantine regulations revised: "radio pratique," 137—E
Waves: See Diathermy, short waves
RADIOACTIVITY: See also Hemangioma
therapeutic substances, evaluation, 723
thermal waters, use, 368
RADIOLOGISTS, International Congress (fifth) in Chicago, 891
professional disability, 888
RADIOLOGY, *Bulletin* of InterSociety Committee for, 1208
Huntington Radium and X-Ray Clinic, 2076

V 1
193

RADIOLOGY—Continued
teaching, (to graduates) [Kirklin] *633; (to undergraduates) [Pendergrass] *634; (survey) [Moore] *637
RADIOTHERMY: See Diathermy
RADIUM, action, mode of, Medical Research Council report, 1052
Emanations: See Radon
irradiation, blisters after, 1064
irradiation, brain changes after, [Colwell] 992—ab
irradiation, exophthalmos after, [Schall] *1506
irradiation, lungs and pleura changes after, [Hsieh] 822—ab
irradiation, recovery rate of skin from, [Quimby] 1402—ab
irradiation, tumors caused by, [Hellner] 543—ab
reaction of cadaver's skin, [Paltrinieri] 319—ab
refining processes, film shows, 440
Treatment: See Leukemia; Menstruation disorders; Radium irradiation; Uterus cancer; etc.
RADIUS, fracture, malunited Colles', [Campbell] *1105
malformation, hereditary, [Montant] 541—ab
RADON gold seeds, new method, [Hames] 2097—ab
Treatment: See Choroid cancer
RAGWEED extract, alum precipitate, [Zoss] 310—ab
RAILROADS: See also Transportation
Congress of Railway Surgeons, 964
employees, diagnosis of intoxication in, 888
employees, social insurance for, 1554
South Manchurian, new gymnasiums, Japan, 887
RAMMSTEDT-FREDET Operation: See Pylorus stenosis
RANNEY'S Finest Brand Strained Unseasoned Products, 433
RAT-BITE FEVER, new form, [Lemierre] 748—ab
RATS, destruction, Amsterdam, 1057
Laboratory: See Animals
RAWLEIGH'S Nasal Relief, 2157—BI
RAY, S. R., fraudulent salesman, 216
RAYNAUD'S DISEASE, 976
vasomotor neurosis or, 1927
RAZORS; also safety type, use in shaving, [Hollander & Casselman] *95
RECORD Book: See Venereal Disease
RECREATION, bill passed, England, 218
RECRUITS: See Army
RECTOSCOPY, differentiation of genital tumors, [Schleyer] 321—ab
RECTOSIGMOID cancer, treatment, [Rankin] *1719
RECTUM: See also Anus
Anesthesia by: See Anesthesia
cancer, avoidable common diagnostic errors, [Graham] 539—ab
cancer, roentgen examination, [Irsigler] 542—ab
cancer, treatment, [Rankin] *1719
cancer, vesical dysfunction after abdominoperineal resection, [Hill & others] *1184
Crisis: See Tabes Dorsalis
endometriosis, [Cattell] 745—ab
Fistula: See Fistula
hemorrhage, kaolin, liquid petrolatum and aluminum hydroxide control, [Fradkin] 464—ab
lesions, symptoms from, [Stone] *1679
stenosing proctitis, [Stolte] 1086—ab
Temperature by: See Temperature, Body
RED CIRCLE Pills, 606—BI
RED CROSS, American, annual report, 1823
Brand Periodic Pills, 2005—BI
German, collaborates in fight against disease, 1827
Headache and Neuralgia Remedy, 2085—BI
Pills, 728—BI
RED FIRE Ointment, 1925—BI
RED PALM Oil: See Keratomalacia
RED RAVEN Splits, 449—BI
REFLEX, ankle clonus in infant at 3 months, 1835
mass, and involuntary micturition, [Langworthy] 237—ab
pleural, as cause of pleural shock, [Capps] *852
spinal, in embryos, [Windle] 1938—ab
testing, dermagraph for, [Stern] *346
REFRIGERATION, electrical, and dehydration of food, 1386
electrical, hazard, (methyl chloride poisoning), 2008; (sulfur dioxide asthma) [Dowling] 2020—ab
electrical, machine for summer air conditioning, [Hayhurst & others] *1804
REGIMENTATION, Federal: See Medicine, state
REGISTRATION: See Licensure; Vital Statistics
REHABILITATION of injured persons, 367
RELAXATION, progressive, 1136
RELIEF: See Emergency Relief
RENZIEHAUSEN Clinic for diabetes research, Pittsburgh, 963
REQUA'S Charcoal Tablets, 1741—BI
RESEARCH: See also Patents
Clinical: See Clinical
graduate study and, 1555
laboratory in the Arctic, 1916
Medical: See also Medical Research Council; Medical Research Institute
medical, Australia, (Jones on opportunity for), 724; (institute at Adelaide), 1056
Quarterly: See Journals
spirit should be subsidized not taxed, 481—ab
RESETTLEMENT Administration: See Index to Organization Section
RESIDENCIES, internships and, *693; 715—E
RESIN, vinyl, toxicity used in lining beer cans, 891
RESORPTION, disorders, adrenal cortex disease as, [Verzár] 1407—ab
RESORTS: See Health
RESPIRATION, Artificial: See also Respirator; Resuscitation
artificial, initiating in asphyxia neonatorum, [Wilson] 2103—ab
artificial (prone pressure), carbon dioxide relation to, [Johnson] 2103—ab
depth and type, effect on basal metabolism, 1138
paralysis, [Flagg] 1216—C; [Brahdy] 2006—C
testing, histamine tolerance test, [Schlösser] 1767—ab
RESPIRATOR: See also Resuscitation
Drinker, in poliomyelitis, end results, 1130—E
Drinker, in resuscitating new-born, [Henderson] 1561—C; [Hurlbut] 2157—C
Emerson Infant Respirator, 131
portable apparatus, [Brahdy] 2006—C
tiding over fatal period before, [Flagg] 1216—C
RESPIRATORY TRACT: See also Bronchus; Lungs; Pleura; etc.
Disease: See also Bronchiectasis; Bronchitis; Pneumoconiosis; Pneumonia; Tuberculosis, Pulmonary; etc.
disease, Duke-Fingard method in, 794—E
disease, oxygen also helium inhalation for, [Barach] 622—ab
infections (acute), iodides in, 2010
infections, sequence [Settel] 1233—ab
symptoms in syphilitic, [Cannon] *351
RESUSCITATION: See also Respirator
mechanical, of new-born, with E. & J. Resuscitator, [Martinez] *489; [Henderson], 1561—C; [Hurlbut] 2157—C
RETICULOCYTES, malaria plasmodia penetrate into, [Eaton] 629—ab
RETICULO-ENDOTHELIAL SYSTEM, blocking, [Cosentino] 1943—ab
in leprosy, 2153
RETICULO-HISTIOCYSTOMA with sacroma degeneration, 291
RETINA detachment, vision after operation for, [Reese] 462—ab
preretinal connective tissue formation in vitreous, [Knapp] 1937—ab
RETINITIS of pregnancy, [Duggan] 2104—ab
RETIREMENT, compulsory, professors exempt, France, 58
REVIGORO Tonic Health Tea, 1741—BI
RHEUMATIC FEVER, aortic commissural lesion in, [Gross] 307—ab
as familial disease, [Wilson] 825—ab
blood sedimentation rate vs. Schilling count in, 878—E
Cardiac Complications: See Heart disease
clinical study, [Chang] 627—ab
etiology, virus, [Eagles] 1585—ab
fatal, [Bland] 1308—ab
patients, transporting to Florida, [Jones] 1308—ab
prognosis in, and puberty, [Leonard] 985—ab
rôle in endocarditis, Gross] 1847—ab
skin manifestations, [Traub] 750—ab
treatment, fever, [Simmons] 904—ab
treatment, vaccine, [Jordan] *1444
vitamin C deficiency relation to, [Weiss & Wilkins] *791; [Rinehart] 1394—ab
RHEUMATISM: See also Arthritis
Acute Articular: See Rheumatic Fever
American Rheumatism Association abstract of proceedings, 1153; 1228; 1307; 1394; 1481
Articular: See Arthritis
clinic, Rackham Fund maintains, Michigan, 962
Empire Rheumatism Council to control, 1998
French League Against, (international symposium on), 287; 720; (International Rheumatology Day), 1051; 1212
Heart Disease: See Heart complications
heritability, 288; 1919
International Congress on, consulting centers, 1824
juvenile, London County Council prevention plan, [Cove-Smith] 316—ab
muscular, effect of jaundice on primary fibrositis, [Hench] 1481—ab
treatment, radioactive thermal waters, 368
treatment, vaccine, [Ishmael] 1229—ab; [Jordan] *1444
RHINITIS, vasomotor, zinc ionizations for, 2011
RHODIUM Treatment: See Frambesia; Syphilis
RHUBARB leaves, danger of eating, 960—E
RHUS, transmission by smoke from fire of poison ivy plants, 729
RIBOFLAVIN in insulin shock therapy of schizophrenia, [Freudenberg] 93—ab
N. N. R., 507
significance for surgical diseases, [Lauber] 543—ab
Synthetic "Roche," 507
RIBS, cervical, and scalenus anticus syndrome, 877—E
cervical, pulse volume in, 70
RICKETS, alleged decalcifying effect of cereals, Council report, 30
anemia relation to, [McDonough] 167—ab
metabolic background, [Gubner] 238—ab
prevention by sun exposure, New York, 809
prevention, Viosterol (A. R. P. I. Process) in Oil, 1126
prevention, vitamins A and D preparations, dosage, Council recommendation, 507
roentgen changes in children, [Kilian] 1495—ab
rôle in heart disease, [Weiss & Wilkins] *791
treatment in infant allergic to viosterol, 452
treatment, vitamin D and hepatic function, 2073—E
treatment, vitamin D, resistant to, [Albright] 1397—ab
RICKETTSIA fever, differential serologic properties, [Mariani] 1238—ab
RIGIDITY: See Encephalitis, Epidemic, sequels
RINGWORM: See also Epidermomycosis
diagnosis, dermatitis between fingers, 226
etiology, Trichophyton gypseum, [Dowding] 992—ab
in shoes, ultraviolet rays for destroying, 1563
RISAL Liquor Cresolic Compound, 1925—BI
ROAD Accidents: See Automobiles
Dust: See Dust
ROBIN "Freshlike" Brand Strained Unseasoned Products, 587
ROCKEFELLER, JOHN D., gifts to Rumania for research, 726
ROCKEFELLER Foundation: See Foundations
Institute (changes in staff), 365; (diseases under investigation), 1550
ROCKY MOUNTAIN *Medical Journal:* See Journals
Spotted Fever: See Spotted Fever
RÖMER TEST, 291
ROENTGEN RAYS, action (general biologic), histamine effect on, [Forfota] 996—ab
action, mode of, Medical Research Council report, 1052
burning sensation after, treatment, 1930
department at St. Luke's, 1460
Diagnosis: See also Heart compression; Kidneys trauma; Peptic Ulcer; Tuberculosis, miliary
diagnosis, Austrian Society, discusses, 968
effect on nervous system, 60
fluoroscopy, possible harm to x-ray operator, 1300
Irradiation: See also Ovary; Pituitary; Roentgenotherapy; Spleen
irradiation, blood vessels changes after, [Windholz] 1495—ab
irradiation (Bucky's), lesions from, [Kalz] 1162—ab
irradiation, lesions after, [Körbler] 471—ab
irradiation, lungs and pleura changes after, [Hsieh] 822—ab
irradiation stimulates corneal immunity, 510—E
irradiation, tumors caused by, [Hellner] 543—ab
sickness in cancer, use of congo red for, 1838
sickness, vitamin B_1 hydrochloride for [Martin] 2097—ab
skin reaction to, in cadavers, [Paltrinieri] 319—ab
skin reaction to, relation to use of metallic substances, 1146
skin recovery from effects of, [Quimby] 1402—ab
Tomography: See Larynx cancer
unit, (Long Island College Hospital), 215; (another million volt, Boston) 438
ROENTGENOGRAMS: See also Medicolegal Abstracts at end of letter M
spatial representation in (third dimension), 220
ROENTGENOGRAPHY: See Arteries; Gallbladder; Knee; Pregnancy
ROENTGENOLOGIST, regulate title x-ray specialist, Bucharest, 61
ROENTGENOLOGY, Austrian Society of, second congress, 968
ROENTGENOTHERAPY: See also Amenorrhea; Arthritis, gonorrheal; Bladder tumors; Cancer treatment; Diabetes Insipidus; Leukemia, myelogenous; Lymphogranuloma Venereum; Phlebitis; Roentgen Rays, irradiation; Sterility; Thrombophlebitis; Typhoid; Whooping Cough
Coutard's Method: See Cancer treatment
dosage, 296
dosage (depth) in epilation irradiations, [Proppe] 471—ab
effects on tissue surrounding gliomas, [O'Connell] 1080—ab
ROGERS' (Dr.) Relief Compound, 2005—BI
ROO-MO-RUB, 1925—BI

ROOMS: See also House; Housing; Sickrooms
apparatus for measurement of daylight in, 442
Schoolroom: See under School
ROSE Radiothermy Unit, 1724; 1905
ROSENBERG'S Improved Great Century Oil, 1660—BI
ROTENONE insect dust, possible toxicity, 1836
ROUSSY, GUSTAV, named rector of U. of Paris, 1648
ROYAL College of Surgeons, joint meeting of Académie de chirurgie, 966; 1464
Medico-Psychological Association, report of Mental Deficiency Committee, 1931—E
RUBELLA and meningo-encephalitis, [Read) *654
RUBIAZOL chemical formula, 1725
RUBINSTEIN, HELENA, 65—BI
RU-CO Female Tonic; Wonderful Health Laxative, 1832—BI
RUHERB, 2156—BI
RUMANIAN Medical Association, 725
RUNNER'S Combined Eczema Lotion, 2156—BI
RUNNING, fracture of anterior superior spine of ilium from, [Mooney) *866
RUPTURE: See Diaphragm; Spleen; Symphysis; Thoracic Duct
RURAL: See Index to Organization Section
Hospitals: See Hospitals
Physicians: See Physicians
RUSSIA, foreign letters from, 59
SOCIALIZED MEDICINE IN SOVIET UNION, by Sigerist, 1911—E
RUST: See Steel
RUTHERFORD, Lord, death, 1734
RYE Flour: See Flour
Lifestaff Natural Grain Meal, 1637

S

SACRALIZATION: See Spine
SACRO-ILIAC JOINT lesions, differentiating from hip and lumbar lesions, 2087
Strain: See Medicolegal Abstracts at end of letter M
tumor, episacroiliac lipoma, [Ries) 1756—ab
SAFETY, National Safety Congress and Exhibit (sixth), Kansas City, Mo., 1134
Razors: See Razors
SAILORS, health insurance for, Italy, 1378
ST. LOUIS Medical Society: See Index to Organization Section
SALICYLATES: See Acid, acetylsalicylic; Acid, salicylic
SALIVA, cell count in myelogenous leukemia, [Allen) 905—ab
excessive salivation from dentures, 299
inhibitory effect on tubercle bacillus, [Piasecka-Zeyland) 1858—ab
SALIVARY GLANDS, secretagogue action, [Boller) 321—ab
SALMONELLA, Bacillus enteritidis septicemia, [Frank] 88—ab
sulpestifer septicemia, [Ravitch & Washington] *1122
SALPINGITIS: See Fallopian Tubes Inflammation
SALT: See also Sodium chloride
craving for, in Addison's disease, 1566
free diet, [Stöcklin] 1675—ab
free diet, diarrhea and intestinal flora, 1047
—E; 1638—E
Iodized: See Goiter, prevention of Reduced Iron: See Iron
poor diet as diagnostic test in Addison's disease, 607
tablets for heat—possible overdosage, 972
water distribution in nursing, [Kerpel-Fronius] 750—ab
Watkins Brand, iodized, 1815
SALYRGAN, diuretics, 2007
SALYSAL, 1906
SAN FRANCISCO Exposition: See Golden Gate Session: See American Medical Association; Index to Organization Section
SAN JOAQUIN Valley Fever: See Erythema Nodosum
SANACAPS, 2005—BI
SANATORIUM: See also Tuberculosis
Federation of American Sanatoria changes name, 514
SANDALWOOD OIL, urinary antiseptic, [Walther] *999
SANDERSON'S (Dr. F. C.) Indian Herbs of Joy and Blood Cleanser, 2005—BI
SANDFLY FEVER, etiology, [Coles] 1763—ab
SANITATION: See also Hygiene
model village at Paris exposition, 1289
SANO-THERME Table, 65—BI
SANOVAPOR Dexene, 1060—BI
SANTAS, MANUEL A., death, 2002
SAPONIN systems, hemolysis in nephritis in, [Bernard) 1845—ab
SARATOGA Ointment, 449—BI
SARCOID, Boeck's, [Nickerson) 745—ab
SARCOMA: See also Lymphosarcoma; Medicolegal Abstracts at end of letter M
degeneration in reticulo-histiocystoma, 291
metastasis (distant) and aspiration biopsy, [McLean] 1579—ab
osteogenic, after mild injury, 453
SARCOPHAGA: See Myiasis
SAUER'S Vaccine: See Whooping Cough, immunization
SAUERBRUCH, Dr., "German" Nobel prize, 2002
SAWDUST as cause of allergy (asthma), 525
SAXOPHONE, playing in pulmonary tuberculosis, 454
SCABIES, parasitic nature, A.M.A. resolution on discovery by Bonomo and Gestoni, 44
treatment, pyrethrum ointment, 894
SCALP: See also Alopecia; Hair; Head
burns from celluloid combs igniting, [Fox] *1978
cerebriform nevus resembling cutis verticis gyrata, [Hammond] 984—ab
injuries, classification, [Moore] *860
seborrhea after permanent wave, 450
SCAPULA: See Interscapulovertebral Space
SCAR: See Cicatrix
SCARLET FEVER, antiserum, treatment of acute rheumatic polyarthritis, [Eason) 317—ab
complications and relapses, reinfection as cause, [Allison) 173—ab
complications, non-nephritic edema, [Zischinsky) 1590—ab
Dick test, [Ker) 172—ab
epidemic, Germany, 220
eruption or toxic erythema from quininne, 1385
immunization, artificial, 455
immunization, protamine in, 300
immunization, sequence, [Stewart & Platou) *1539
in inoculated and noninoculated children, 290
patents, [The Scarlet Fever Committee) 1833—C
treatment, convalescent serum, [Fox) 1487—ab
SCARLET RED Sulfonate—"National," 2141
SCHAAF'S Evaporated Milk, 433
SCHICK Fluid: See Diphtheria Immunization
SCHILLER Iodine Test: See Uterus cancer
SCHISTOSOMA japonicum, cerebral infection with, [Greenfield) 2104—ab
SCHIZOPHRENIA: See Dementia Praecox
SCHLEYER, CARL, death, 1920
SCHOLARSHIPS: See also Fellowships
donations for, Argentina, 148
Guggenheim Foundation, for Brazilians, 1466
Howard at Ohio State U., 1822
Medical Research Council, 441
SCHOOLS: See also Children, school; Students; University; Medicolegal Abstracts at end of letter M; Index to Organization Section
closing, panic, publicity and polio, 957—E
communicable disease control in, [Ferrell) *835
health education and health services in, [Rogers) *842
hearing problems in, [Newhart) *839
light in schoolroom, [Jackson) *841
medical inspection reform, Belgium, 602
medical supervisor, examination for position, New York, 718
New York City, use A.M.A. broadcasts, 1727—E
nutrition problems in, [McLester) *838
of aerial protection (national), Belgium, 596; 888
of basic medical sciences, A. M. A. Council to publish list, *664
physical education in, Belgium, 372
physical examinations in, Japan, 289
SCHOOLS, MEDICAL: See also Education, Medical; Graduates; Students, Medical; University; and under names of specific schools
admission requirements, *659; *664
Afrikaans medical faculty, urge establishment, 1377
Association of American Medical Colleges, 1287
by states, *667
description, *676
for women, London, 1918
foreign, U. S. citizens enrolled in, *673; *674; *675
in U. S., 1905-1937, *671
internship required by, *667; 715—E
recognized, statistics, *660; *665
survey by A. M. A., 715—E
Teaching In: See Education, Medical
tuition fees, *672
SCIATICA, etiology, intervertebral disks, [Barr & others] *1265; (prolapse) 1553
treatment, fasciotomy, [Ober) *534
SCIENCE, Academy of: See Academy
American Association for Advancement of, (exhibit at Indianapolis) 964; (symposium on syphilis) 2077
basic medical, schools of, Council to publish list, *664
British Association for Advancement of, presidential address on evolution, 1135
he also places who waits, 18—ab
Kaiser-Wilhelm-Gesellschaft for Advancement of, 1648
Patents: See Patents
SCIENTISTS, degrees for, U. S. S. R., 59
persecuted; society for protecting, England, 802
SCLEROSIS: See also Arteriosclerosis; Liver cirrhosis
amyotrophic lateral, surgery in, 2068
multiple, cholesterol metabolism in, [Frisch) 177—ab
SCLEROSIS—Continued
multiple, effect of heat and cold in, [Simons) 1400—ab
multiple, treated by normal human serum, [Stransky) 916—ab
multiple, vascular thrombi in, [Putnam) 391—ab
SCOPOLAMINE, accidental use of, for hematropine, [Daneshek & Feinsilver) *961
Therapeutic: See Bursitis
SCOTLAND: See Index to Organization Section
SCOTOMA, Bjerum's, 229
SCOTT'S Nose and Throat Drops, 1653—BI
SCROTUM cancer, fatal cases, [Henry] 1667—ab
SCURVY, asymptomatic, wound healing and peptic ulcer, [Ingalls] 1489—ab
heart disease in, [Taylor] 174—ab; [Weiss & Wilkins] *791
treatment, salt of reduced iron and cevitamic acid, [Pijoan] 909—ab
SEASICKNESS, treatment, tutecain in, 894
Lenggenhager's theory; value of prone position, [Tobler) 2172—ab
SEASONS: See also Climate; Weather
cycle of tuberculin allergy, [Rigoni] 995—ab
effect on habituation to morphine, [Amsler) 1240—ab
SEATTLE *Times*: See Newspapers
SEATWORM Infestation: See Oxyuriasis
SEAVIGOR, 449—BI
SEBACEOUS GLAND cysts from massage cream, 453
SEBORRHEA of scalp after permanent wave, 450
pathologic chemistry, 2153
SECONAL, narcotic habit from, 527
SECRECY, Professional: See Privileged Communications
SECRETARY: See Societies, Medical
SEDIMENTATION Reaction: See Blood
SEDORMID, hemorrhagic purpura from, [Kramer) 632—ab
SEEDS, patients sensitive to its pollens but not to, 878—E
SELENIUM, toxicity; pathology, [Smith) 1077—ab; (acute sore throats from) [Motley & others) *1718
retention and elimination, 2144—E
SELLA TURCICA, enlargement of extrasellar origin, [Haas) 243—ab
SEMEN: See Aspermia
SENECIO poisoning, 1377
SENGARIAN Ointment (formerly Hungarian Ointment), 686—BI
SENSATION: See Paresthesia
SEPTICEMIA: See also Bacteremia; Medicolegal Abstracts at end of letter M
B. enteritidis, sporadic case, [Frank] 88—ab
B. proteus, in pyelonephritis, [Hirsch & Shapiro] *937
bacteremia and, 497—ab
gonococcic, [Bazel & Snow] *1275; [Hoffmann & Schneider] *1447
otitic, after mastoiditis, [Fenton] 536—ab
pneumococcus, prontosil soluble in, [Millett] *2138
sulpestifer complicating meningococcic, [Ravitch & Washington] *1122
SERGENT, EMILE, retires, 1926
SEROLOGIST, opening for, Arkansas, 363
SEROTHERAPY: See Diphtheria paralysis; Hemotherapy; Hyperthyroidism; Meningococcus infection; Pneumococcus infection; Pneumonia; Sclerosis, multiple; Spider bite; Typhoid
SERUM: See also under Blood
antibactericidal effect, [Hughes] 1674—ab
Convalescent: See also Actinomycosis; Measles; Scarlet Fever
convalescent, American Human Serum Association organized, 366
convalescent serum center, [Fantus) *130
disease of nervous system, [Kraus) 236—ab
Goat: See Hypertyroidism
Nephritis: See Nephritis
Normal Human: See Sclerosis, multiple
Pneumonia: See Pneumococcus
precipitin, for testing for human blood; medicolegal case, 896
Sickness: See Anaphylaxis and Allergy
stores of, for emergencies, Germany, 602
SEWERS, workers in, spirochetal jaundice, 1128—E
SEX: See also Fertility; Impotence; Virilism
changing, in goats, billy goat which gives milk, 1659
changing, of chicks, possible? 1659
degeneracy, group to study, Chicago, 961
Hormones: See also Androgens; Estrogens; Gonadotropic Principles; Vesinas
hormones, vascular parabiosis, and cancer, [Murray] 903—ab
Intercourse: See Coitus; Impotence
Intergrades: See Hermaphroditism
Organs: See Genitals; Genito-Urinary Tract
perversion; homosexuality and divorce, 802
ratio, especially in humans, 1136
Science: See Index to Organization Section
SEXOL, industrial hazard, [McConnell] *784
SEXTON Brand (cherries; plums) 31; (pineapple) 133; (fruit for salad) 1815
SHAVEGRASS Cut, 1832—BI

SHAVING, [Hollander & Casselman] *95
SHEEP, tularemia from handling tick infested, [Winter & others] *258
SHELANSKI Insufflator, vaginal use of silver-picrate powder, 1453
SHELLY'S Eleemzit, 1658
SHIMAZONO, J., death, 289
SHIPS: See also Sailors; Seasickness
medical service to ships at sea, center for closed, Italy, 1378
quarantine regulations, revised; "radio pratique," 137—E
smallpox on ocean liner, 799
typhoid on ocean liner, 800
SHOCK, [Maisel] 996—ab
Allergic: See Anaphylaxis and Allergy
Electric: See Electricity
in hyperpyrexia induced by hot moist air, [Kopp] 1859—ab
Insulin: See Dementia Praecox
medical, after intravenous neoarsphenamine, [Weinberg] 822—ab
secondary, physiologic availability of fluids, [Davis] 1313—ab
Traumatic: See Trauma
SHOES, ultraviolet rays destroy ringworm in, 1563
SHORT WAVES: See Diathermy
SHORTENING, Clix, 1043
SHOULDER: See also Clavicle; Interscapulovertebral Space
dislocation (recurrent), 155
injury; treatment; prognosis, 893
SHRAPNELL'S Membrane, perforation from syringing ear, 609
"SHUFFLE foot": See Foot
SICKNESS: See Disease; Vital Statistics, morbidity
Insurance: See Insurance, health
Roentgen: See Roentgen Rays
Serum: See Anaphylaxis and Allergy
SICKROOMS, removal of flowers from, at night, 379
SIGERIST, HENRY E., SOCIALIZED MEDICINE IN SOVIET UNION, 1911—E
SIGHT: See Vision
SIGMOID: See also Rectosigmoid
cancer, avoidable, common diagnostic errors, [Graham] 539—ab
SILICATE, ethyl, industrial hazard, [McCord] *767
SILICOSIS: See Pneumoconiosis
SILVER Nitrate: See Burns, treatment; Ophthalmia neonatorum
Picrate: See also Trichomonas vaginitis; Uterus; Vaginitis
Picrate N. N. R., description, 29
picrate powder, Shelanski Insufflator, 1453
Picric-Wyeth's, 29; 2141
Toxicity: See Argyria
SIMMONS, GEORGE H.: See also Index to Organization Section
death; portrait, 807; (funeral) 882; (Council appreciation) 1906
SINGER, relation to laryngologist, [Ridpath] *545
SINUS Thrombosis: See Thrombosis
SINUSES, NASAL, cancer, exophthalmos complicates irradiation, [Schall] *1506
fracture involving, [Coleman] *1613
infection, trinitrophenol-calcium carbonate for, [Gray] 1377—ab
SINUSITIS, NASAL, chronic, short waves in, [Talia] 1408—ab
orbit infections from, [Hubert] 1671—ab
treatment, Duke-Pingard method, 794—E
SIP O, 1741—BI
SKELETON: See Bones
SKENE'S DUCTS, anatomy, 1837
SKIN: See also Dermatology; Tissues
absorption of vitamins in soap, 509—E
atrophy, secondary macular, [Scull] 1757—ab
Cancer: See Epithelioma
care of new-born, [Sanford] 826—ab
diabetes, pedal-gedenic ulcer on basis of, [Urbach] 1767—ab
diphtheria producing abscesses, 732
Disease: See also Dermatitis; Eczema; Pruritus; Urticaria; etc.
disease, exudative discoid and lichenoid chronic, [Sulzberger] 987—ab
disease, sensitiveness to light in, [Stokes] 2018—ab
disease, tuberculous bacteremia in, [Boaco] 1676—ab
Eruptions: See Arsphenamine; Ecthyma; Erythema; Quinine; Sulfanilamide
fungous flora of normal, [Downing] 391—ab
gangrene, [Meleney] 150—C
grafting in severe burns, [Padgett] 618—ab
grafts, foreskins for, [Ashley] 1231—ab
hypercalcemia in acute salpingitis, [Labatte] 1316—ab
infection in platers, 1044
irritation and cancer in U. S. Navy, [Peller] 1496—ab
Itching: See Pruritus; Scabies
lesions, occupational, 722
lesions, paratyphoid and related bacteria in, [Pasting] 1581—ab
manifestations in articular rheumatism, [Traub] 750—ab
SKIN—Continued
manifestations in leukemia, [Gaté] 395—ab; [Giannicandro] 629—ab
minerals lost through, when sweating is avoided, [Freyberg] 1670—ab
museum of models (Delbeouw collection), 888
pachydermia with pachyperiostosis, [Glomo] 542—ab
procaine hydrochloride injection, untoward effect, 1929
protection (surgical) latex for [Narat] *655
Reaction: See also Skin test; Tuberculin
reaction (allergic), histamine injection intensifies, [Corelli] 1765—ab
Reaction (intradermal): See Intestines, antigens; Undulant Fever
reaction testing (dermagraph), [Stern] *346; (pinwheel) [Wartenberg] 1294—C
reaction to pneumococcus vaccines, [Weil] 1232—ab
reactivity to killed tubercle bacilli, [Carlinfanti] 319—ab
roentgen rays and radium effect on skin of cadavers, [Paltrinieri] 319—ab
roentgen rays effects on, (relation to metallic substances) 1146; (rate of recovery) [Quimby] 1402—ab
sensitivity and hay fever, 1474
sensitivity in asthma, [Pearson] 317—ab
sensitivity to sunlight and sulfanilamide, [Frank] *1011; [Newman & Sharlit] *1036; [Grosjean] 1382—C
sensitivity to tuberculin, [Sylla] 320—ab
shaving effect on, [Hollander & Casselman] *95
shrinkage in pituitary obesity, 381
Test: See also Pregnancy diagnosis; Skin reaction
test (group) for allergy, 155
test with bacteria products, [Traut] 988—ab
tuberculosis, effect of pneumothorax, 1920
tuberculosis, treatment, 1213
tumors and photosensitizing substances, [Büngeler] 1321—ab
tumors, papillomatosis, [Wise] 1486—ab
vegetable coloring matter action on, 1838
SKULL: See Cranium
SLEEP, brain potentials in, [Blake] 1297—ab
disorders, hay fever with insomnia, 454
disorders, insomnia, danger of inducing phenobarbital addiction, 2161
disorders, narcolepsy, benzedrine sulfate for, (Council report) *2066; [Ulrich] 2101—ab
first few hours most restful? Value of intermittent periods, 609
pathologic, in brain tumors, [Cox] 540—ab
SLEEPING SICKNESS: See Encephalitis, Epidemic; Trypanosomiasis
SLEEPWELL Golden Floss Pillows, 1723
SLIM, 1741—BI; 2085—BI
SLOWNESS in children, 154
SMALLPOX develops at sea, 799; 1297
immunity to, [Husband & Loy] *1797
outbreak, (Iowa) 364; (Niagara) 799; (Chicago) 2074
vaccination before trip to orient, 454
vaccination, neutralizing principle for vaccinia in lymph nodes, [McMaster] 744—ab
vaccination, order of sequence, [Stewart & Platou] *1520
vaccination (subcutaneous) remains unapproved, Japan, 1922
vaccine treatment of recurrent herpes simplex, [Foster] 987—ab
SMOKING: See Tobacco
SNAKE Venom: See also Arthritis, treatment; Hemorrhage, treatment
venom, investigation, 1138
SNYDER'S (S. P.) Tablets Prescription No. XX 2005—BI
SOAP, A. M. A. Advisory Committee on Advertising of, on use of "non-allergic," 1723
shaving, [Hollander and Casselman] *98
vitamins in Woodbury's also Cosray, skin absorption, 509—E
SOCIAL HABITUATION, invention, and communication, 1774—ab
SOCIAL HYGIENE, American Social Hygiene Association creates Snow medal, 2075
Foundation of America: See Index to Organization Section
SOCIAL INSURANCE: See Insurance
SOCIAL MEDICINE: See Medicine
SOCIAL SECURITY ACT: See also Index to Organization Section
A. M. A. resolution relative to applicants for blind assistance, 37
federal regimentation of physicians and hospitals, 436—E
grants to states under title V, 879—E
SOCIAL SERVICE, (statistics on, Italy) 291; (growth, England) 1998
SOCIALIST MEDICAL ASSOCIATION organ: *Medicine Today and Tomorrow*, 1647
SOCIETIES, MEDICAL: See also under names of specific societies; and under list of societies at end of letter S; Index to Organization Section
meetings during Paris Exposition, 287
Società di Dermatologia e Sifilografia, 291; 1920; 2153
Società Italiana di psichiatria, 371
SOCIETIES, MEDICAL—Continued
Society for Investigative Dermatology, officers, 440
Society of Hydrology and Medical Climatology, 219
SODIUM aluminum silicofluoride, toxicity, 1929
benzoate, Ampoules Caffeine with, 875
bicarbonate-oatmeal colloid bath, 67
Bromide Treatment: See Peptic Ulcer
chloride, gastric secretion and acid-base equilibrium, [d'Amato] 2024—ab
chloride hypertonic solution, necessary to modify? 1053
chloride intake (increased) in diabetes, 455
chloride, Physiological Solution of (Abbott Laboratories), 658
citrate (buffered) use in arteriosclerosis and thrombo-angiitis obliterans, [Jablons] 522—C; (reply) [Bernheim & London] 523—C
Morrhuate: See also Fascia hernia; Varicose Veins
morrhuate, Ampul-Vials Solution Sodium Morrhuate with Benzyl Alcohol, 1365
Nitrite: See Tobacco ambivopia
Pentobarbital: See Pentobarbital sodium
perborate burns of oral mucosae, 731
Psyllate Injection: See Jaws
Thiosulfate: See Gold Sodium thiosulfate
SOFKURD Milk, 973
SOLDERING process, toxicity, 895
SOLDIERS: See also Army; Military; War; etc.
hearts, study, 519
SOL-KLEEN, Tar Dermament to protect hands from, 71
SOLVENTS, volatile, industrial hazard in, [McConnell] *762; 956—E; (banana oil) 2159
SOUTH African Medical Association gold medal to Dr. W. T. Davies, 61
SOUTHERN Medical Association, 1733
SOUTHWESTERN Medical Association, 1646
SOY BEAN, supplement to Indian diets, [Aykroyd] 1081—ab
SPAGHETTI, Foulds, 1637
SPANISH moss, [Metzger] 1076—ab
SPASM: See Esophagus; Muscles; Pylorus; Stomach
SPASMOPHILIA: See also Tetany
treatment, calcium orally, [Fillion] 2172—ab
treatment, crystallized vitamin B_1, [Widenbauer] 397—ab
SPEAKERS' Bureau, activities, Iowa, 1048
SPECIALISTS in social medicine, France, 723
SPECIALIZATION in medicine, value, [Bule] *917
SPECIALTIES, Advisory Board for, officers, 140
Board (certification): See American Board
hospitals approved for residencies in, by A. M. A. *693; 2091
SPECIMENS, pathologic, discolored by blood, 298
SPEECH, difficulty with, advisable to use hearing devices? 730
disorders, Littauer Institute for, 513
disorders, stammering, 2087
disorders, stuttering, lisping, etc; speech index of neurotic behavior, [Greene] *187
disorders, stuttering and slowness in children, 154
SPERMATIC CORD, myxofibroma, possibly neurogenic, [Wolbarst] *1623
SPERMATORRHEA, milky urine sign of, 298
SPERMATOZOA, attempted sterility by immunizing to, 1838
azoospermia and impotence, 2160
SPHINCTER MUSCLES, Oddi's, pathologic physiology, [Walters & others] *1591
urethral, incontinence in female, [Kennedy] 1846—ab
SPHINX Herb Tea, 2156—BI
SPIDER bite (black widow), 381; 451; [Ginsburg] 619—ab; (first record in Minnesota) [Denning] 1946—ab
bite ("knopple-spider"), specific antivenene (serum) for, [Finlayson] 88—ab
bite, possible late effects, 380
SPINA BIFIDA occulta, genito-urinary tract disorders from, [Berri] 1238—ab
SPINACH, iron, calcium vs. vitamin content in, vs. tomatoes, [Tisdall] 1760—ab
nutritional value, Council report, 1907
SPINAL ANESTHESIA: See Anesthesia
SPINAL CORD: See also Poliioencephalomyelitis
air embolism to, after attempted pneumothorax, [Wikler & others] *430
disease, vitamin B complex for, [Pfaffenberg] 636—ab
lesions, fatal lodized oil diagnosis (Sicard), 1211
myelination in, thymus extract (Hanson) for, [Buckley] 81—ab
surgery, 50 years, 1828
symptoms in pernicious anemia, 523
SPINAL FLUID: See Cerebrospinal Fluid
SPINAL INJECTION: See Injections
SPINAL MENINGITIS: See Meningitis
SPINAL PUNCTURE, convulsions after lumbar puncture, 1385
SPINE: See also Back; Cauda Equina; Coccyx; Interscapulovertebral Space; Sacro-iliac Joint

SPINE—Continued
arthritis (progressive ankylosing) 1745
cancer, alcohol injections in, 377
diseases affecting intervertebral foramina, [Oppenheimer] 239—ab
fractures and dislocations of cervical spine; first aid and transportation, [Brookes] *6
fractures, simple method in, [Binkley] 467—ab
hypertrophy of ligamenta flava cause of low back pain, [Spurling & others] *928
injury, neurologic symptoms due to, 298; (reply) [Katz] 733
injury (war), treatment of bladder in, 1288
intervertebral disk lesions, pain low in back and "sciatica" from, [Barr & others] *1265
intervertebral disk prolapse, sciatica due to, 1553
lumbar lesions, differentiating from hip and sacro-iliac lesions, 2087
osteo-arthritis, diagnosis correct? 1143
osteomyelitis (pyic) [Mayoral] 83—ab
osteomyelitis (vertebral) [Browder] 617—ab
sacralization of fifth lumbar vertebra, [Wenzl] 832—ab
spondylitis (progressive ankylosing), 296
SPIROCHETES in placenta, 1046—E
survival in fluid nitrogen, [Jahnel] 1766—ab
SPIROCHETOSIS: See also Jaundice, spirochetal
icterohemorrhagic, in coal miners, dishwasher, etc., 443; 1826
leptospirosis of mild type (seven-day fever), Queensland, [Clayton] 627—ab
oral, mercurial treatment, [Grove] 1586—ab
SPLEEN, calcification (miliary) [Berman] 908—ab
Enlargement: See Splenomegaly
eosinophilia after intravenous oil injections, [Engelbreth-Holm] 472—ab
Excision: See Splenectomy
hypoplenia, [Schmidt] 751—ab
irradiation in gynecologic hemorrhages, [Caffier] 1239—ab
irradiation with short waves in hemolytic anemia, [Groag] 83—ab
myelocytes in normal human, [Bertelsen] 1496—ab
rupture (spontaneous), [Ask-Upmark] 629—ab
SPLENECTOMY, fat metabolism disorders after, [Zancan] 318—ab
for liver cirrhoses, [Bergeret] 830—ab; 1053
for purpura haemorrhagica, [Wintrobe & others] *1170
indications; contraindications, [Upham] 1761—ab
SPLENOMEGALY, erythroblastic, puncture hematopoietic centers in, [Weil] 912—ab
gastroduodenal diseases and, [Volterra] 1588—ab
hematemesis (recurrent) with, 2151
tuberculosis, liver cirrhosis and Banti's disease, [Fittipaldi] 1084—ab
SPLINTS, bone, of magnesium alloy, 967
SPONDYLITIS: See Spine
SPOTTED FEVER, in Illinois, 592
in Iowa, 52; 281
made reportable, Maryland, 1285
vaccine available, 142
SPRAY, Nasal: See Poliomyelitis
SPRIGGE, SQUIRE, editor of *Lancet*, 212—E; 367; (successor appointed) 516
SPRUE, treatment and clinical course, [Miller] 141—ab
treatment, congo red, [Barker] 1485—ab
SPUR, Calcaneal: See Calcaneum
SPUTUM: See also Pneumonia
paraffin embedding, in lung cancer, [Mosto] 542—ab
SQUIBB Yeast Tablets, 1127
SQUILL, destruction of rats, Amsterdam, 1057
SQUINT: See Strabismus
SQUIRRELS, Plague-infected: See Plague
STAINING leprosy and tubercle bacilli with methylene blue injection, 291; 1920
tissues of biopsy from aspiration; technic, [Aghlaloo] 479—ab
STAIRWAY: See Heart function test
STAMMERING: See Speech disorders
STAPHYLOCOCCUS, disorders, specific toxoid therapy, [Ramon] 628—ab; 967
endocarditis superimposed, [McMillan & Wilbur] *1194
food poisoning; [Timmerman] 1590—ab; 1994
pathogenic, isolation of, [Chapman] 237—ab
Toxoid-Squibb, 2141
STARDOM'S Health Diet, 1060—BI
STATE BOARD, internship required by, *667; 715—E
STATE BOARD REPORTS
Alabama, 611; 1749
Arizona, 301; 1301
Arkansas, 733
California, 382; 1568; 1660
Colorado, 229; 814; 1749; 2091
Connecticut, 382; 456; 1748; 1749
Delaware, 1568
District of Columbia, 610
Florida, 1475
Georgia, 1066
Hawaii, 229; 2162
Idaho, 611
Illinois, 978; 2012
STATE BOARD REPORTS—Continued
Indiana, 1749
Iowa, 301; 2162
Kansas, 456
Kentucky, 1222
Louisiana, 896
Maine, 814
Maryland, 382; 1387
Michigan, 1221; 1748
Minnesota, 72
Mississippi, 1749
Missouri, 301; 1839
Nebraska, 733
Nevada, 382; 1749
New Hampshire, 301
New Mexico, 156
North Carolina, 1931
North Dakota, 2012
Ohio, 1066; 2011
Oklahoma, 1475
Rhode Island, 301; 2162
South Dakota, 156
Tennessee, 156; 1222
Texas, 72; 1387
Utah, 978
Vermont, 2091
Virginia, 528
Washington, 1568
Wisconsin, 72; 1066; 2162
Wyoming, 814
STATE LABORATORIES: See Laboratory
STATE MEDICINE: See Medicine, state
STATISTICS: See also Vital Statistics
PRINCIPLES OF MEDICAL STATISTICS by A. Bradford Hill, 713—E
STATLER, J. L., 375—BI
STEATORRHEA: See Feces, fat in
STEEL, rusted, from sweating, 1837
STEINBERG Method: See Peritoneum
STEKETEE'S Worm Destroyer, 1060—BI
STERILITY: See also Medicolegal Abstracts at end of letter M
diet effect on, [Watson] 993—ab
endocrine and gynecologic aspects, [Baron] 1578—ab; [Lützenberg] *1871
etiology; treatment in women, 1919; 1928
in men, 1920
in pulp workers using sulfurous acid and chlorine? 378
treatment, irradiation, [Kaplan] 1755—ab
treatment of obstructed tubes by diathermy and insufflation, [Mintz] 821—ab
treatment, vitamin E, [Martin] 465—ab
STERILIZATION, SEXUAL: See also Medicolegal Abstracts at end of letter M
by injecting semen, 1838
roentgen, with fractional repeated doses, [Momigliano] 1859—ab
25,000 persons sterilized, U. S., 719
STERILIZATION, SURGICAL, of air in operating room with u-v rays, [Hart] 170—ab
of cocaine solution, 977
STILLBIRTH: See also Twins, stillborn
syringomie (habitual), [Young] 314—ab
STOCK'S Nu-Tone Tonic, 2085—BI
STOCO for Colds, 2157—BI
STOKELY'S (liver soup) 133; (vegetable soup) 1043; (apple sauce) 1201
STOLIGAL, 1925—BI
STOMACH: See also Epigastrium; Gastro-Intestinal Tract
Acidity: See also Stomach inflammation; Stomach secretion
acidity, analysis and "leukopenic index," [Long] *23
acidity, effect on iron retention, [Barer] 165—ab; 1281—E
acidity, glomerulonephritic anemia relation to, [Townsend] 2095—ab
acidity, hydrogen peroxide as depressant of, [Culmer] 461—ab
acidity in pernicious anemia, [Kahn] 1755—ab
acidity, lack of free hydrochloric acid in, 1657
acidity, magnesium trisilicate neutralizes hydrochloric acid, [Mann] 172—ab
cancer, early recognition, 1553
disease and splenomegaly, [Volterra] 1588—ab
Disorder: See also Stomach secretion
disorder, "upsets" in child with positive Wassermann, 973
diverticulum with subcardial stenosis signs, [Levrat] 1319—ab
gastroscopic and roentgen study compared, [Schindler] 1940—ab
gastroscopy of hypochromic anemia-achlorhydria-atrophic gastritis syndrome, [Morrison & others] *1168
hemorrhage, diet unrestricted in, [Meulengracht] 2025—ab
inflammation, acidity in, and bacterial flora, [Mahle] 915—ab
inflammation (antral) and spasm, [Golden] *1497
meat extracts as stimulants of, [Boon] 1583—ab
motor functions after resection, [Barbèra] 1588—ab
"mucin virulence" of Haemophilus influenzae, 1283—E
Perforation: See Gastro-Intestinal Tract; Peptic Ulcer
photography, 2008
STOMACH—Continued
preparations treatment of pellagra, [Petri] 1322—ab
roentgen study, mucosal pattern technic and kymographic records, [Skinner] *1963
secretion, acid-base equilibrium and chlorides, [d'Amato] 2024—ab
secretion, bactericidal power of juice, [Sebastianelli] 1161—ab
secretion, bromine in juice, [Chatagnon] 89—ab
secretion disorders, short wave treatment, [Benassi] 831—ab; [Neidhardt] 996—ab
secretion, effect of calcium on amount and acidity, [Cella] 1494—ab
secretion of acid, histamine test of, 1565
suction (nasal tube) resulting in alkalosis and death, [Taylor] *267
Surgery: See also Peptic Ulcer, surgical treatment
surgery, anemia after resection, [Manizade] 2109—ab
surgery, partial gastrectomy, [Lake] 992—ab
tissues, defensive factors, [Carlson] 312—ab
STOMATITIS, Vincent's: See Angina, Vincent's
STOOLS: See Feces
STOVARSOL (acetarsone): See Trichomonas vaginalis
STRABISMUS, nonparalytic, surgery for, [Kirwan] 1584—ab
treatment, importance to public health, 1377
STRAIN: See Back; and Medicolegal Abstracts at end of letter M
STRAMONIUM Treatment: See Paralysis agitans
STREAM: See Water
STREET Accidents: See Automobiles accidents
Cars: See Transportation
Dust: See Dust
STREPTOCOCCUS, anaerobic, infections, 590—E
bacteremia, [McNeal & Cavallo] *2139
faecalis infection, mandelic acid cure, [Helmholz] *1040
hemolytic, toxins and antitoxins; titration by flocculation, [Rane] 82—ab
in milk stored at atmospheric temperatures, [Pullinger] 1856—ab
Infections: See also Scarlet Fever; Streptococcus, anaerobic; Throat, sore; etc.
infections, diaminodiphenylsulfone for, [Buttle] 626—ab
infections (fulminating) in infants, [Rector] 311—ab
infections, sulfanilamide for, 358; 598; [Bliss & Long] *1524
viridans, hypersensitivity and focal infection, [Weisberger] 313—ab
STRYCHNINE Treatment: See Diphtheria paralysis
STUDENTS: See also Children, school; Students, Medical
health album, press service, national bureau, and other Nazi innovations, 445
health lectures for, in high school, Ia., 1548
STUDENTS, MEDICAL: See also Graduates; Internships; etc.
Association of, 2076
birthplace, *662; *665; *666
by classes, *671
by sex, *669
by states, *667
first year, physical examination, Paris, 1375
first year, preliminary education, *664
foreign, number seeking honorary diplomas decrease, France, 1375
health of, England, 1374
Negro, *671; *672
part-time and special, *669; *670
registration, new regulations, 142
resident and nonresident, *666
socialized medicine decreases number of new ones, Vienna, 1465
statistics, *669
Teaching: See Education, Medical
U. S., 1905-1937, *671
STUPOR, conditions after insulin treatment in schizophrenia, [Salm] 833—ab
STUTTERING: See Speech disorders
STUTTGART Disease: See Dogs
SUCTION device (simple external), [Tenopyr] 1158—ab
Gastric: See Stomach
SUFFOLK Brand Evaporated Milk, 1201
SUGAR: See also Carbohydrates; Dextrose; Lactose (cross reference)
consumption vs. diabetes increase, [Süsskind] 631—ab
solution (hypertonic) to reduce intracranial pressure, [Jackson] 1231—ab
SUICIDE, causes, 796—E
pathogenesis; prevention, [Franks] 1076—ab
SULFANILAMIDE, action, mode of, [Bliss & Long] *1524
agranulocytosis (fatal) from, [Young] 1159—ab; [Jennings] 2170—ab
American brands, examination by A. M. A. Chemical Laboratory, 358
anemia (acute hemolytic) from, [Harvey & Janeway] *12; [Kohn] *1005; [Jennings] 2170—ab
-Calco, 359
chemical formula, 1725
citra-lactate solution dispensed by Donley-Evans and Company, 1367
cyanosis from, [Marshall] 1314—ab
distribution in organism, [Marshall] 2020—ab

V 1 193

SULFANILAMIDE—Continued
Elixir of Sulfanilamide-Massengill, (deaths from) 1367—E; 1456—E; *1538; *1539; 1544—E; *1725; 1727—E; [U. S. Secretary of Agriculture] *1985; 1992—E; (renal lesions from) [Keston & others] *1509; (Chemical Laboratory series) *1531; *1724; (chemical examination) [Schoeffel & others] *1532; (toxicity studies on rats) [Geiling & others] *1532; (pathologic effects) [Cannon] *1536; [Ruprecht & Nelson] *1537; [Hagebusch] *1537; [Beall] 1561—C; 1911—E; [Richter] 1926—C
eruptions, [Hageman & Blake] *642; [Menville & Archinard] *1008; [Goodman & Levy] *1009; [Frank] *1011; [Newman & Sharlit] *1036; [Schonberg] *1035; [Salvin] *1038; [Schwentker] 1314—ab; [Grosjean] 1382—C; [Finney] *1982; [Myerson & others] *1983
fever (specific) reaction to, [Hageman & Blake] *642
-Gane & Ingram, 1543
kidney excretion of, [Marshall] 2019—ab
-Lederle, 359
-Lilly, 1365
-Merck, 359
methemoglobinemia from, [Paton] 316—ab; (methylene blue in) [Wendel] 1216—C
-Monsanto, 1543
N. N. R., 358; (description revised) 1454
-"National," 1543
optic neuritis from, [Bucy] *1007
-P. D. & Co., 1543
restrict sale and use, (California) 1048; 1729; (New York) 1915
Squibb 359; 1989
sulfhemoglobinemia from, [Paton] 316—ab; 515; 1128—E; [Archer] 1585—ab
toxic effects, 515
treatment, must be used with care, 1128—E; [Tarbell] 1316—ab
treatment of empyema, [Gay] 2100—ab
treatment of erysipelas, [Breen] 626—ab; [Snodgrass] 1159—ab; [Marzollo] 1763—ab
treatment of gas gangrene, [Bohlman] *254
treatment of gonococcic infections, [Ballenger & others] *1037
treatment of gonorrhea, [Reuter] 238—ab; (in pregnancy) 527
treatment of malaria, [Díaz de Léon] 1940—ab
treatment of meningitis, [Martin] 1675—ab
treatment of meningococcic and pneumococcic infections, [Branham] 312—ab
treatment of pneumonia, [Heintzelman] 389—ab; [Millett] 1940—ab
treatment of puerperal hemolytic streptococcus infections, 598
treatment of urinary tract infections, [Walther] *1003; [Helmholz] *1039; [Kenny] 1082—ab
SULFATE, Ferrous: See Anemia, nutritional
SULFHEMOGLOBINEMIA after sulfanilamide, [Paton] 316—ab; 515; 1128—E; [Archer] 1585—ab
SULFO-KRESOL-TABS, 2005—BI
SULFONAMIDE: See Sulfanilamide
SULFUR: See also Acid, sulfurous
Anhydride Vapors: See Pediculosis
dioxide asthma from, in refrigerator repairman, [Dowling] 2020—ab
used to improve nails, 68
SULLIVAN'S Indian Oil, 1653—BI
SUMNER'S Lung Salve, 1925—BI
SUN: See also Light sensitivity; Ultraviolet Rays
effect on sympathetic system, 62
exposure, preventing rickets in New York City, 809
Stroke: See Heat stroke; Medicolegal Abstracts at end of letter M
sunshine in soap, 509—E
SUNLAMPS: See also Ultraviolet Rays, lamp
New Century, 1904
SUNLIGHT Brand Oleomargarine, 1455
SUNNY Skies Brand Evaporated Milk, 1455
SUPPOSITORIES: See also Mercurin
anal, lycopodium granuloma resulting from, [Antopol & Robbins] *1192
Silver Picrate: See Uterus; Vagina
SUPRARENALIN Solution 1:100 (for oral inhalation), 1543
SUPRARENALS: See Adrenals
SUPRIFEN, chemical formula, *2065
SURGEONS: See also Orthopedics; Railroads
American College of, 1135
SURGERY: See also Diathermy; Electrosurgery; under names of specific organs and diseases
Academy of: See Academy
American Board of, examination postponed, 595
Anesthesia in: See Anesthesia
diabetes mellitus relation to, [Abell] 238—ab
disease, action of transfused blood in, [Gesse] 631—ab
disease, vitamin B_2 rôle in, [Lauber] 543—ab
French Congress, 1735
German Society, congress, 145
institute of, Buenos Aires, 1139
medicine and, tend to converge, 1111—ab
modify hypertonic saline solution as now employed in? 1053
North Pacific Surgical Association, 2077

SURGERY—Continued
operating room, explosions in, [Coste] 171—ab; 1052
operating room, light and color for, 1064
operating room, sterilization of air with U-V rays, [Hart] 170—ab
Orthopedic: See Orthopedics
Plastic: See also Eyelids, ptosis; Vagina
plastic, in automobile injuries, [Straith] *940
postoperative azotemia and polypeptidemia, [Ferracani] 242—ab
postoperative blood lipids, [Boyd] 1317—ab
postoperative blood platelets, [Mazzini] 629—ab
postoperative care in bile tract operation, [Payne] *1436
Postoperative Complications: See Embolism; Thrombosis
postoperative, Donaggio reaction, blood platelets and sedimentation rate, [Perazzo] 469—ab
postoperative headache, [Koster] 619—ab
postoperative medication in cured morphine addict, 1839
responsibility in, limits, 146
Royal College of, and Académie de chirurgie, joint meeting, 966, 1464
shock (cerebral vascular), [Frisch] 2109—ab
skin protection with latex, [Narat] *655
Sterilization in: See Sterilization, Surgical
Technic: See also Sutures
technic, change in character of workmanship, 417—ab
vitamins importance to, 146
Western Surgical Association, 2077
work in military hospitals, 1921
SUTURES: See also Index to Organization Section
absorbable, made from fetal membranes, [Johnson] 538—ab
catgut tetanus, prevention, 1288
SWALLOWING, technic in painful dysphagia, [Flesch] 1085—ab
SWEATING, negative insensible, [Fröhlich] 93—ab
night phthisic, treatment, [Hofmann] 1861—ab
prevention, effect on loss of minerals through skin, [Freyberg] 1670—ab
rusted steel from, 1837
SWEDISH Government Telegraph and Telephone Board aids tuberculosis campaign, 596
SWEET'S Comfrey Linament; Sweet's Kura-A-Kol Tablets, 1060—BI
SWIMMING, leukocyte picture during, [Kellner] 1677—ab
SWINEHERDS, disease of, [Fatzer] 1083—ab
SYLVESTER'S Genuine Haarlem Oil, 606—BI
SYL-WEY, 2156—BI
SYMPATHECTOMY, effects in hypertension, 973
lumbar, for abdominal pain, [Diez] 176—ab
lung parenchyma modified after, [Biasini] 469—ab
"relapse" after, [Simmons] 2022—ab
SYMPATHOBLASTOMA: See Neuroblastoma
SYMPHYSIS PUBIS, traumatic rupture, treatment, [Sommer] 542—ab
SYNCOPE as results of circulatory disorders, [Herrmann] 907—ab
fainting, 2088
SYNCYTIAL Reaction: See Pregnancy, diagnosis
SYNTHALIN, hypoglycemic therapy induced with, 795—E
SYPHILIS: See also Chancroid; Venereal Disease; Index to Organization Section
A. M. A. motion picture film on, reservations, 958—E
blindness prevention and, [Berens & Goldberg] *777
capillaroscopy, [Nicolas] 1764—ab
Cardiovascular: See Cardiovascular Disease, syphilis
clinic (new), Maryland, 798
congenital and prenatal, [Cole] *580; (reply) [Holcomb] 972—C
congenital, ophthalmoplegia and gastric upsets in child, 973
congenital, prevention, [Hogan] 169—ab
congenital, safe for persons with it to marry? [Cole] *584
congenital, Wassermann test of cord blood, reliable? 451; (replies) [Davies] 977; [Cormia] 1065; [Heller] 1654—C; 1930
control, (clinical lecture on), [Parran] *205; (Chicago Medical Society approves plan) 592; (New York City plan) [Clarke] *1021; (sources of infection traced, Indiana), 1284; (Y. M. C. A. to cooperate) 1997; (graduate instruction in) 2071—E
control, committee on, (Colorado), 51; (Arizona) 592; (Missouri), 718; (West Virgina) 719; (National) 1923
Diagnosis: See also Syphilis, serodiagnosis
diagnosis, determining status in patient, 1146
diagnosis (insufficient), treatment on, 1300
diagnosis, tracing through common ailments; [Cannon] *348
early, arsenoxide (mapharsen) in, [Parsons] 85—ab
early, artificial fever and chemotherapy in [Simpson] 1576—ab
early, benign hepatitis, [Waugh] 1487—ab

SYPHILIS—Continued
endemic, nonvenereal syphilis; bejel, 802
familial behavior, 1828
history, clinical description dating 1363 or before, [Holcomb] 972—C
incidence in general population, insane institutions and penitentiaries, 1062
incidence in Negro, [Holloway] 164—ab
incidence, more cases reported, Iowa, 717
infectiousness from food and ordinary associations, 455
institute on, Cleveland, 1372
"latent," treatment, [Cannon] *357; 527
pregnancy and, [Tamis & Clahr] *198; 298; 451; (replies) [Davies] 977; [Cormia] 1065; (treatment), 1145
reinfection or relapse, 1565
research on, biochemist wanted for, 1997
resistant, treatment by injecting streptobacillary vaccine (dmelcos), [Fivoli] 914—ab
Serodiagnosis: See also Wassermann Test
serodiagnosis, American Committee on Evaluation of Serodiagnostic Tests, report, 134—E; [Wiener] 294—C; [Parran & others] *425; 437—E; (correction) [Kolmer] 522—C
serodiagnosis, Hinton test, Davies modification, [Davies] 465—ab; 537—ab
serodiagnosis, Ide color test, 972
serodiagnosis, Meinicke test, 1931
serodiagnosis, premarriage tests, tax laboratories, use Kahn instead, Illinois, 511
serodiagnosis, questionnaires seek public opinion, Chicago, 363
serodiagnosis, wards of Children's Aid Society undergo tests, Illinois, 363
seronegative mothers (untreated) of syphilitic children, [Waugh] 2100—ab
spirochetes in placenta, 1046—E
survey of volunteer citizens, California, 880
symposium at American Association for Advancement of Science, 2077
tertiary, after malarial and recurrent fever therapy, [Pilcz] 244—ab
third generation, [Clark] *1038; [Heller] 1654—C
tonsillectomy in, contraindicated, 895
Treatment: See also under Syphilis, early; Syphilis, pregnancy and; etc.
treatment, 379; 1221; 1299; 1385; 1747
treatment, and license to drive motor car, 1473
treatment, arsphenamine dermatitis [Epstein] *117
treatment, arsphenamine sensitivity in, 228
treatment, bismuth compounds, 151
treatment, heavy metals, sensitivity to, 379
treatment, iodobismitol, [Barnett & Kulchar] *1715
treatment, mercury, arsphenamine and bismuth effect on leukocytes, [de Lillo] 90—ab
treatment, pregnancy urine hormones, 1931
treatment, rhodium, [Jahnel] 177—ab
treatment, state provides drugs, Alabama, 797
treatment, Trisodarsen (formerly Triarsen), Council report, 1125
treatment, ultraviolet and autohemotherapy, [Baer] 1234—ab
virus, filtrability, 291
yaws and, [Turner] 462—ab; [Holcomb] 1742—C
Wassermann fast, 527
SYPHILOLOGY, American Academy to be organized, 44; 1208; 1916
American Board of, (examination), 1823
International Congress on, 43; 1134
Società di Dermatologia e Sifilografia, 291; 1920; 2153
SYRACUSE University College of Medicine, (building dedicated) 2075; (plan of medical care) [Bailey & Weiskotten] *2136; 2144—E
SYRUP, brands accepted, 359; 1201; 1455
SYS-TONE, 2085—BI
von **SZENT-GYÖRGYI, ALBERT**, Nobel Prize awarded to, 1733; 1912—E; 2153

SOCIETIES

Acad.—Academy
Am.—American
A.—Association
Coll.—College
Conf.—Conference
Cong.—Congress
Conv.—Convention
Dist.—District
Hosp.—Hospital
Internat.—International
M.—Medical
Med.—Medicine
Nat.—National
Phar.—Pharmaceutical
Phys.—Physicians
Rev.—Revision
Ry.—Railway
Soc.—Society
Surg.—Surgery
Surgs.—Surgeons
S.—Surgical

Académie Duchenne de Boulogne, Paris, 441
Acad. of Dermatology & Syphilology, 1916
Acad. of Physical Med., 514, 1287, 1552, 2077
Acad. of Tropical Med., 1823
Aero M. A., 1645
All-Union Antimalaria Conf., Moscow, 59
Am. Acad. of Dermatology & Syphilology, 1208, 1916
Am. Acad. of Ophthalmology & Otolaryngology, 1051, 1462, 1917
Am. Acad. of Orthopedic Surgs., 964, 2077
Am. Acad. of Tuberculosis Phys., 56

109
37

Societies—Continued
Am. A. for the Advancement of Science, 366, 964, 2077
Am. A. of Anatomists, 514
Am. A. of Genito-Urinary Surgs., 284
Am. A. of M. Milk Commissions, 56
Am. A. of Obstetricians, Gynecologists & Abdominal Surgs., 1287, 1916
Am. A. of Railway Surgs., 1208
Am. A. of School Phys., 1823
Am. A. for the Study of Goiter, 1287
Am. A. for the Study of Neoplastic Diseases, 595
Am. Birth Control League, 440
Am. Bronchoscopic Soc., 56
Am. Clinical & Climatological A., 595, 1135, 1462
Am. Coll. of Chest Phys., 514
Am. Coll. of Radiology, 1208, 1552
Am. Coll. of Surgs., 514, 1135, 1645
Am. Cong. of Physical Therapy, 883, 1373
Am. Dermatological A., 56
Am. Dietetic A., 1208
Am. Hosp. A., 601, 1208
Am. Human Serum A., 366
Am. Laryngological A., 719
Am. Laryngological, Rhinological & Otological Soc., 56
Am. M. Golfing A., 141, 1916
Am. Neurological A., 56
Am. Orthopedic A., 56
Am. Pharmaceutical A., 216
Am. Proctologic Soc., 1462
Am. Psychoanalytic A., 2076
Am. Public Health A., 1051, 1373
Am. Radium Soc., 216, 440, 1208
Am. Red Cross, 1823
Am. Rheumatism A., 1153, 1228, 1307, 1394, 1461
Am. Roentgen Ray Soc., 1208, 1552
Am. Sanatorium A., 56
Am. Social Hygiene A., 882, 1823
Am. Soc. of Clinical Pathologists, 56
Am. Soc. for the Control of Cancer, 56
Am. Soc. for the Hard of Hearing, 1208
Am. Soc. of Tropical Med., 1823
Am. S. A., 56
Am. Therapeutic Soc., 284
Am. Urological A., 284
A. of Am. M. Colleges, 1287, 1823
A. of Life Insurance M. Directors, 1823
A. of M. Students, 2076
A. of Military Surgs. of the United States, 882, 1914
A. for the Study of Allergy, 216, 964
Biological Photographic A., 964
Birth Control Clinical Research Bureau, 440
Birth Control Council of America, 440
Boston S. A., 142
Brazilian Institute for the Investigation of Tuberculosis, 596
Brazilian Soc. of Orthopedic Surg. & Traumatology, 720, 1464
British A. for Advancement of Science, 1135
British M. A., 57, 596, 597, 1553, 1825
California M. A., 1205, 1913
Canadian M. A., 597, 598
Central A. of Obstetricians & Gynecologists, 441, 1641, 1645
Chicago M. Soc., 592
Clinical Orthopedic Soc., 1051
Colorado State M. Soc., 437, 880, 1205, 1287
Congrès International du Tourisme, du Thermalisme et du Climatisme, 441
Cong. of French Alienists & Neurologists, 1054
Cong. of the German M. Surg., 145
Cong. of Orthopedic Soc., Berlin, 1737
Cong. of Otorhinolaryngologists, Berlin, 804
Cong. of Psychiatrics, 371
Cong. of Railway Surgs., 964
Cong. of Roentgenologists, Vienna, 968
Connecticut State M. Soc., 716, 797
Delaware, M. Soc. of, 1131, 1547
Florida East Coast M. Soc., 1459
Florida M. A., 142
Florida Soc. of Dermatology & Syphilology, 716
Florida Tuberculosis A., 137
French Gynecologic Cong., 599, 1999
French Hygiene Cong., 369
French League Against Rheumatism, 720, 1051
French Orthopedic Cong., 1137
French Otorhinolaryngologic Cong., 287
French Soc. of Dermatology & Syphilology, 965
French S. Cong., 1735
French Urologic A., 2079
Georgia, M. A. of, 52, 961
German Anatomical Soc., 1824
Harvey Cushing Soc., 56
Hawaii Territorial M. A., 1287
Idaho State M. A., 592, 1459
Indiana State M. A., 961, 1284
Institute of Med. of Chicago, 439, 1548
Internat. Committee to Combat Charlatanism, 1922
Internat. Conf. on Leprosy, 284
Internat. Cong. of Comparative Pathology, 1917
Internat. Cong. of Dermatology, 1134, 1733
Internat. Cong. for Experimental Cytology, 1917
Internat. Cong. on Gastro-Enterology, 1373, 1553
Internat. Cong. on Graduate M. Study, 1554
Internat. Cong. on Hepatic Insufficiency, 1552, 1647
Internat. Cong. of Industrial Med., 732
Internat. Cong. on Infantile Psychiatry, 1289
Internat. Cong. of Med., 1137
Internat. Cong. on Mental Hygiene, 56
Internat. Cong. of Military Surgs. & Pharmacists, 1292
Internat. Cong. of Obstetrics & Gynecology, 1373
Internat. Cong. for the Protection of Children, 291, 1136
Internat. Cong. of Psychotherapeutists, 441
Internat. Cong. of Public Health Officials, 1290
Internat. Cong. of Radiology, 801, 1373
Internat. Cong. on Rheumatism, 287
Internat. Cong. on Rheumatism & Hydrology, 1824
Internat. Cong. of the Therapeutic Union, 805
Internat. Council on Ophthalmology, 1051
Internat. Hosp. A., 1051
Internat. League Against Rheumatism, 1212
Internat. Organization Against Trachoma, 1051
Internat. Physiological Cong., 1733
Internat. Short Wave Cong., 1139
Internat. Spa Cong., 441
Internat. Union Against Tuberculosis, 217, 285
Inter-Soc. Committee for Radiology, 1208
Iowa State M. Soc., 1048, 1914
Kentucky Psychiatric A., 1730
Kentucky State M. A., 364, 881, 1132
League of Nations, 965
Louisiana Soc. for Mental Hygiene, 213
Maine M. A., 1205, 1206
Massachusetts M. Soc., 53
Michigan A. of Industrial Phys. & Surgs, 1914
Michigan State M. Soc., 799, 962, 1549
Mississippi Valley Conf. on Tuberculosis, 964, 1373
Mississippi Valley M. Soc., 284
Mississippi Valley Sanatorium A., 964
Montana Health A., 799
Montana State M.A., 54, 439
Nat. A. for Nursery Education, 514
Nat. Committee for Mental Hygiene, 1552
Nat. Cong. on Educational Broadcasting, 719
Nat. Cong. of Obstetrics & Gynecology, 217
Nat. M. A., 964
Nat. Research Council, 514
Nat. Safety Council, 596
Nat. Safety Cong., 1134
Nat. Soc. for the Prevention of Blindness, 1208
Nat. Tuberculosis A., 55, 1645
Nebraska State M. A., 139
Nevada State M. Soc., 963, 1461
New England Physical Therapy Soc., 1820
New England Soc. of Physical Med., 1820
New Jersey, M. Soc. of, 363, 881
New York Acad. of Med., 54, 1461
New York State Women's M. Soc., 215
North America, Radiological Soc. of, 1552
North Carolina, M. Soc. of, 719
North Carolina Radiological A., 54
North Pacific S. A., 2077
Northwestern Pediatric Soc., 881
Ohio State M. A., 1050, 1133
Oklahoma State M. A., 1551
Oregon State M. Soc., 215, 1207, 1551, 1644
Otorhinolaryngologic Cong. of the Latin Nations, Bucharest, 291
Pacific Coast Oto-Ophthalmological Soc., 140
Pacific Coast Soc. of Obstetrics & Gynecology, 1552
Pacific Northwest M. A., 595
Pan American M. A., 216, 1462, 2077
Pennsylvania, M. Soc. of the State of, 882, 1050, 1462
Polish M. & Dental A. of America, 1208
Puerto Rico M. A., 1904
Radiological Soc. of North America, 1208
Rhode Island M. Soc., 140
Rocky Mountain Conf., 141
Royal M. Soc., 441
Rumanian M. A., 725
Soc. for the Study of Asthma & Allied Conditions, 1552
Soc. of Surgs. of New Jersey, 799
South Africa M. A., 61
South Carolina M. A., 595
Southern M. A., 1733, 2077
Southern Psychiatric A., 1135
Southwestern M. A., 1446
Tennessee Valley M. A., 283
Texas, State M. A. of, 1462
Utah State M. A., 1134, 1287
Vermont State M. Soc., 1134, 1462
Virginia, M. Soc. of, 1134, 1645
Virginia Orthopedic Soc., 1822
Virginia Pediatric Soc., 1822
Virginia Roentgen Ray Soc., 1822
Virginia Urological Soc., 1822
Washington State M. A., 55, 514
Western Ophthalmological Soc., 800
Western Orthopedic A., 294
Western S. A., 2077
Western Virginia M. A., 55
West Virginia Public Health A., 1906
Wisconsin, State M. Soc. of, 800, 1050, 1287, 1823, 1906
Wyoming State M. Soc., 514

T

TABES DORSALIS, Charcot joints and trauma, 1927
form of dementia paralytica, treatment, 1834
rectopenile crises, 732
treatment, (O'Leary) *1165
treatment, tryparsamide plus bismuth, 142
TABLE Gee Valuable Elements of Milk, 2156—BI
TACHYCARDIA, paroxysmal, in infants, [Campbell] 173—ab
TAENIA Saginata: See Tapeworm Infestation
TAKATA Reaction: See Liver disorders
TALCUM powder granuloma, [Flenberg] 744—ab
TALIPES Equinovarus: See Foot deformities
TAMPONADE: See Heart
TAMPONS: See Menstruation
TANNIN: See Acid, tannic
TAPE: See Adhesive Tape
TAPEWORM INFESTATION, diagnostic signs and symptoms, [Penfold] 174—ab
in the South, [Sunkes] 1486—ab
treatment, anthelmintics in pregnancy, 1658
TAR Cancer: See Cancer
dermament to protect worker's hands, 71
TASTE, ageusia after mastoidectomy, [Ho] 1232—ab
sensation, perversion, 813; 1063
TATTOO, powder, surgical removal, [Lindsay] *1530
TAX: See also Medicolegal Abstracts at end of letter M; Index to Organization Section
income, assessment, novel method for establishing, Rumania, 61
income, deducting medical expenses for, 801
TEACHER: See Professors; Vocal Teacher
TEACHING: See Education, Medical
TECHNICIANS, approved schools for, *708; *709; *710
TEENJORE Ointment, 1655—BI
TEETH: See also Dental; Dentifrices; Gums; Jaws; etc.
caries, calcium and vitamin D in pregnancy to prevent, (reply) [Gordon] 733
dentures, excessive salivation from, 299
extraction, treatment of edentulous patient, 1384
fillings, electrogalvanism from, 526
gold bridgework turning black, 2011
hereditary and environmental influence, 1213
infected, and hypersensitivity, [Weisberger] 313—ab
infection, short wave diagnosis, [Gutzeit] 543—ab
lesions and systemic disease, especially tuberculosis, 211—E
mottled enamel from fluorine in water, [Kempf] 1157—ab
pathognomonic of prenatal syphilis, [Cole] *580
TELECORD, heart phase photographed in sequence, 909
TELLURIUM poisoning, 1746
Treatment: See Leprosy
TEMPERATURE: See also Arctic; Climate; Cold; Heat; Weather
atmospheric, streptococcus in milk stored at, [Pullinger] 1856—ab
low, spirochetes survival in fluid nitrogen, [Jahnel] 1708—ab
monthly mean, New York City, [Master] 2157—C
TEMPERATURE, BODY: See also Fever
diurnal cycle, establishing, [Kleitman] 164—ab
normal, mouth or rectal? 451
rectal, instrument for continuous reading, [Bierman] *967
TEMPOROMANDIBULAR JOINT: See Jaws
TENDON, Achilles (short), bilateral foot strain from, 1220
sheaths, ganglions, puncture with large bore needle, [Bearse] *1626
sheaths, tumor with myeloplaxes, [Santero] 913—ab
TERMINOLOGY: See also "Words and Phrases" under Medicolegal Abstracts at end of letter M
Basle nomenclature in anatomy, 1473
coma defined, [Brody & Hayman] 1833—C
"non-allergic," decision of A. M. A. Advisory Committee on, 1723
psychiatric definitions, 228
recurrent laryngeal nerve, [Batson] 1562—C
TERRALINE Creosote, 1666—BI
TESTIMONIAL, Vital-Ex, 1569—BI
TESTIS, atrophy, 2010
excision in pseudohermaphroditism? 884
Hormones: See Androgens
inflammation, acute orchitis, 296
inflammation, orchitis from undulant fever, 296; (reply) [Harris] 1300
treatment of migraine in women by oxidation ferments from, [Zajicek] 94—ab
tumor, chorionepithelioma, [Bankoff] 832—ab
tumor (malignant) in children, [Campbell] *1610
undescended, antophysin, antuitrin-S, folluteln and A. P. L. for, 1146
undescended, gonadotropic substance for, [Dahl-Iversen] 834—ab; [Hess] 1759—ab
undescended, gonadotropic substance not advised in boy under 5, 733
undescended, pseudo and true cryptorchidism, [Hamilton] 1669—ab
undescended (right) and right scrotal hernia, 1931
undescended, treatment, 1734
TESTOSTERONE Propionate: See Androgens
TETANUS, [Stewart] 1578—ab
after Fourth of July injuries, *1806
after septic abortion, 290

V 1
193

TETANUS—Continued
antitoxin not substitute for diphtheria antitoxin, 1474
bacilli, isolation from street dust, surgical importance, [Gillies] *484
catgut, prevention, 1288
diabetic gangrene and, 144
hemolysis (total) in, [Hall] 2021—ab
immunization, alum-precipitated toxoid, 381; [McBryde] 467—ab; [Gold] *481
prevention; treatment, [Kovtunovich] 1085—ab
toxoid, Combined Diphtheria Toxoid-Tetanus Toxoid, Alum Precipitated, Lilly, 29
toxoid, response to, one year after immunization, [Jones] 1852—ab
treatment, especially antitoxin, [Yodh] 172—ab
TETANY: See also Spasmophilia
of new-born, [Zahorsky] 226—C
TETRACHLOROETHYLENE: See *tetra*Chloroethylene
THALAMUS syndrome, 974
THEAMIN Treatment: See Urination, Incontinence
THEELIN: See Estrogens
THEELOL: See Estrogens
THEOBROMINE Treatment: See Angina Pectoris; Cardiovascular Disease
THEOPHYLLINE: See also Angina Pectoris, treatment; Theamin (cross reference)
effect on intrathecal and venous pressures, etc., [Greene & others] *1712
THERAPEUTICS: See also Hemotherapy; Physical Therapy; Roentgenotherapy; Serotherapy; Index to Organization Section
International Congress of Therapeutic Union, 905
therapy of Cook County Hospital (blood preservation), [Fantus] *128
THERMOMETERS, marking of, Czechoslovak law on, 441
rectal, continuous indicating, [Bierman] *867
THIAMIN chloride term for Vitamin B_1 Hydrochloride, Council report, 952
THIGH: See also Buttocks; Gluteal Region; Hip Joint
pain down back of, cause; relief, [Thiele] *1271
THOMSON, JOHN GORDON, death, 720; 966
THOMSON, STEWART C., memorial to "country doctor," 435
THORACIC DUCT, ruptured, traumatic chylothorax from, chyle intravenously for, [Bassenfeld] *916
THORACOPLASTY: See Tuberculosis, Pulmonary
THORACOSCOPY: See Tuberculosis, Pulmonary, artificial pneumothorax in
THORAX: See also Chylothorax; Hydrothorax; Pneumothorax
complications in subdiaphragmatic infection, [Coope] 1586—ab
deep effect in tuberculin positive reaction, [Weisman] *1445
intrathoracic calcification in tuberculin-positive infants, [Bralley] 1852—ab
Knee-Chest Exercises: See Uterus retrodisplacement
THORIUM Dioxide Substitute: See Diodrast
THROAT: See also Larynx; Neck; Tonsils; etc.
disease, urea in, [Levy] 1232—ab
Sore: See also Tonsils, infected
sore (acute) after exposure to selenium, [Motley & others] *1718
sore (streptococcic), sulfanilamide for, [Harvey & Janeway] *12
streptococci from, fibrinolytic activity, [Jolly] 1758—ab
THROMBO-ANGIITIS OBLITERANS in Negroes, [Yater] 235—ab
lobeline sulfate effect on, use in tobacco habit, [Wright & Littauer] *649
puttees and Buerger's disease, 228
treatment, intermittent venous occlusion, [Collens & Wilensky] *2125
THROMBOPENIA: See Blood platelets
THROMBOPHLEBITIS: See also Phlebitis
acute, 69
complicating ulcerative colitis, 1219
complications, B. proteus pyelonephritis, [Hirsch & Shapiro] *937
femoral, 1239
treatment, acetyl-beta-methylcholine iontophoresis, [Murphy] 624—ab
treatment, roentgen, [Henschen] 175—ab
THROMBOSIS: See also Embolism; Thrombophlebitis
allergic vascular reactions in, 2152
complicating multiple sclerosis, [Putnam] 391—ab
coronary, crisis in Addison's disease, [Sacks] 619—ab
coronary, differentiating from dissecting aneurysm, [Blackford & Smith] *262
coronary, impending, [Sampson] 740—ab
coronary, incidence vs. climate, [Rosahn] 1294—C; [Master] 2157—C
coronary, onset of, [Master & others] *546
coronary, trauma cause? 2048
coronary, with transitional glycosuria, 1829
THROMBOSIS—Continued
deep, in lower extremities, arterial symptoms, [Lindgren] 998—ab
postoperative [Bancroft] 2017—ab
sinus (cavernous), [MacNeal & Cavallo] *2139
sinus (dural) in early life, [Bailey] 2104—ab
sinus (lateral), internal jugular vein ligation in, [Novick] 621—ab; (treated *without* ligation) [Ersner & Myers] *919
THYMOFORM, 1653—BI
THYMUS extract (Hanson) for myelination in nervous system, [Buckley] 81—ab
extract (Hanson) for myelination in nervous system, [Buckley] 81—ab
extract, induce myasthenia with, 147
irradiation, effect on pancreas structure, [Bentivoglio] 995—ab
THYROID: See also Goiter; Goiter, Exophthalmic
crisis, blood chemistry in, [Maddock & others] *2130
disease, evidence that most is congenital, [Patterson] 1762—ab
extract, clinical results in children, [Jacobson & Cramer] *101
hormone, action on immunity, [Rocchini] 1942—ab
hyperplasia (primary) in one still-born twin, [Werner & Shipner] *575
Hyperthyroidism: See Hyperthyroidism
Hypothyroidism: See Hypothyroidism
pathology, 1828
sterility and, [Lutzenberg] *1872
Surgery: See Thyroidectomy
tuberculous infection and, [Schedtler] 914—ab
tumor, adenoma, 2090
THYROIDECTOMY, blood serum of goats after, for hyperthyroidism, 71
blood sugar and cholesterol after, [Atnan] 1162—ab
iodine given after, fallacy, [Davison] 312—ab
morbidity, [Dinsmore] *179
myxedema or exophthalmos after, 1747
pituitary changes after, [Altschule] 1938—ab
total, in congestive heart failure, 210—E; (injury to recurrent laryngeal nerve), [Quinlan] 889—C; [Young] 1295—C; [Batson] 1562—C; [Quinlan] 2086—C
total, in angina pectoris, objections, [Froment] 89—ab
total, in cardiac and vascular diseases, [Singer] 752—ab
THYROXINE, antihormones detected by complement fixation reaction, [Bauer] *1442
TIC Douloureux: See Neuralgia, trigeminal
TICKS, bite, tularemia from, Colorado, 716
Infested sheep, tularemia from handling, [Winter & others] *2255
paralysis in children, [Barnett] *846
TIFFENEAU, MARC, appointed dean, 2080
TILE setter, xanthoma tuberosum of knees and elbows in, [Sugg & Stetson] *414
TIME: See Journals
Enterprises: See Index to Organization Section
TIPOVA Tablets, 2005—BI
TISSUES: See also Mucous Membrane (cross reference); Skin
allergic manifestations in, 2152
calcium deposits in, 2011
connective, and defense reactions, 1169—ab
connective (preretinal) formation in vitreous, [Knapp] 1937—ab
penetration by Diesel engine fuel oil, [Rees] *860
Perunguinal: See Nails
soft, lesions in arthritis, [Kling] 904—ab
TNT: See *tri*Nitrotoluene
TOBACCO, ambiyopia, acetylcholine; sodium nitrite for, [Duggan] *1354
denicotinized, in gastric diet, [Bernay] 1942—ab
effects of smoking on circulation, 896
heart, [Golston] 1582—ab
poisoning in infant from mother smoking cigarets, [Wyckerheld Bisdom] 178—ab
smoking habit in coronary thrombosis, [Master & others] *546
smoking habit, lobeline sulfate treatment, [Wright & Littauer] *649
vasomotor neurosis or Raynaud's syndrome, 1927
TOES: See also Nails
hallux valgus, 523
overgrowth (local), [Chandler] *1411
TOLUENE, industrial hazard, [McConnell] *784
TOLUYLENE-AZO-BETA-NAPHTHOL, toxicity, [Climenko] *493
TOMATOES, brands accepted, 133; 277; 587; 1455
spinach compared to, [Tisdall] 1760—ab
TOMOGRAPHY: See Larynx cancer
TONGUE, coated, 1145
painful, electrogalvanism from dental fillings, 530
painful, glossodynia, 1297
TONICS, alterative for man and dogs, 455
TONSILLECTOMY in syphilis contraindicated, 895
injurious? 221
results [Epstein] 462—ab
TONSILLITIS: See Tonsils, infected
TONSILS, Excision: See Tonsillectomy
Infected: See also Throat, sore
infected, in children, bismuth for, [Köhler] 177—ab
TOOTH: See Teeth
TORCH OIL dermatitis, [Kammer & Callahan] *1511
TOURS: See Pan American cruise
TOXAMIN, decalcifying effect of cereals, Council report, 30
TOXICOLOGY: See Industrial poisoning; Medical Jurisprudence; Poisoning
TOXINS: See also Streptococcus
bacterial, poisoning, electrocardiogram in, [Weber] 1944—ab
TOXOID: See Diphtheria; Staphylococcus; Tetanus
TRACHEA: See also Laryngotracheobronchitis
obstructive lesions, helium inhalation in [Kernan] 2018—ab
TRACHEOTOMY, epinephrine intratracheally after, [Green & Miller] *1903
in cellulitis of neck, [New] 1672—ab
TRACHOMA, experimental, 1044—E
infectious agent, [Julianelle] 81—ab
International Organization against, 1051
visual ravages: Trachoma Clinics of Southern Illinois, [Gradle & De Francois] *253
TRAFFIC: See Automobile; Noise
TRAILER: See Automobiles
TRANSFUSION: See Blood Transfusion
TRANSPLANTATION: See Grafts (cross reference)
TRANSPORTATION services, physical examination of applicants, Paris, 1554
TRAUMA: See also Chylothorax; Diaphragm; Elbow; Knee; Nerves, peripheral; Medicolegal Abstracts at end of letter M
Brazilian Congress of Traumatology (second), 1466
Charcot joints and, 1927
coronary occlusion caused by? 2088
diabetes and, 1474
Fourth of July injuries, *1806; 1818—E
heart injury and, 154
heart lesions due to blunt force, [Munck] 322—ab
neurologic symptoms due to, 298; (reply), [Katz] 733
paralysis localization in relation to injury, [Parker] 1404—ab
pelvic tumors affected by, 2161
peptic ulcer relation to, 1230
rehabilitation of injured persons, 367
shock and concealed hemorrhage, [Harkins] 619—ab
TREATMENT: See Therapeutics
TRIARSEN: See Trisodarsen
TRIBROM-ETHANOL: See Anesthesia
TRICASCO, 2156—BI
TRICHINOSIS and alcohol, 1723—E
garbage-fed hog, [Hall] 746—ab
TRICHLOROETHYLENE: See *tri*Chloroethylene
TRICHOMONAS, intestinal infection, [De Muro] 1320—ab
vaginalis, infest bladder, [Nitschke] 170—ab
vaginalis, leukorrhea, 2007
vaginalis, pathogenicity, [Mohr] 544—ab
vaginalis vaginitis, acetarsone, carbarsone, silver picrate, lactose, lactose with kaolin or with citric acid for, [Rosenthine] *768
vaginalis vaginitis, silver picrate for, [Mascall] 540—ab; (use of Shelanski insufflator) 1453
TRICHOPHYTON gypseum, ringworm due to, [Dowding] 992—ab
TRILOBECTOMY: See Lungs, surgery
TRINITROPHENOL (picric acid): See also Poliomyelitis, prevention
pseudo-icterus possibly from, 1146
Treatment: See Sinuses, Nasal, infections
TRINITROTOLUENE: See Nitrotoluene
TRISODARSEN: Council report, 1125
TROMBIDIOSIS or chiggers, 212—E
TROPICAL Malaria: See Malaria
Ulcers: See Ulcers
TROPICAL MEDICINE, Academy of, 1823
American Society of, 1823
TROPICS, acclimatization to, Italians in Africa, 82
TRU Tablets of Asperin; Tru-Lax, 2005—BI
TRYPANOSOMIASIS, Chagas disease, 1138
Chagas disease and complement fixation test, [Johnson] 309—ab
research on, 1209
treatment, synthalin hypoglycemic shock, 795—E
TRYPARSAMIDE Treatment: See Nerves, optic; Neurosyphilis
TRYPTOPHAN, effect on gastric ulcer, [Fürth] 1677—ab
Reaction: See Meningitis, tuberculous
TUBERCLE BACILLUS, bacteremia in dermatoses, [Rosco] 1676—ab
killed, skin reactivity to, [Carlinfanti] 319—ab
saliva inhibitory effect on, [Piasecka-Zyland] 1858—ab
seasonal cycle [Rigoni] 995—ab
short waves modify, [Mennit] 1494—ab
staining with methylene blue, 291

TUBERCULIN Reaction: See also Mantoux Test
reaction and BCG vaccine, 144
reaction, BCG vaccination of children effect on, 399
reaction in nurses, 58; 2080
reaction (local cellular) in sensitized calves, [Feldman] 2168—ab
reaction, negative in children in infected families, 1289
reaction positive in children; tuberculosis in their contacts, [Wells] 1398—ab
reaction (positive) vs. deep chest, [Weisman] *1445
sensitivity of skin, [Sylla] 329—ab
test (intracutaneous), purified protein derivative vs. "O.T.," [Law] 77—ab
test, ointment patch, [Wolff & Hurwitz] *2042; (with saturated filter paper) [Vollmer] 2095—ab
testing with purified protein derivative, [Whitney] 78—ab
TUBERCULOSIS: See also Tuberculosis, Pulmonary; under names of specific organs and diseases; and Medicolegal Abstracts at end of letter M
allergy, [Schulz] 915—ab; [Hensel] 1860—ab
Argentina League Against, center for, 1139
blood changes after vitamin C and orange juice, [Radford] 390—ab
bovine, (freeing cattle from, England) 143; (Maryland free from) 285; (fight against, Netherlands) 289; (New York free from) 1373
Brazilian Institute for Investigation of, 596
campaign, Swedish government aids, 596
case finding work, Detroit plan, [Vaughan & Douglas] *771; [Douglas] 1398—ab
complications, diabetes, [Dunlop] 394—ab; [Schedtler] 914—ab
complications, leukemia, [Ryan] 1073—ab
conferences (graduate), 1994
control, (law requires campaign, Colombia) 142; (new division, Colorado) 437; (notification of cases, Japan) 888
Diagnosis: See also Mantoux Test; Tuberculin reaction; Tuberculosis, miliary; Tuberculosis, serodiagnosis
diagnosis, mobile x-ray unit, Chicago, 2074
diagnosis, of latent, suspected and early clinical forms, [Hetherington] *1952
diagnosis, pediatric, 378
endocrines and, [Schedtler] 914—ab
familial behavior, 1828
hormones (sex) and, 136—E
Hospital: See also Tuberculosis sanatorium
hospital (new, Louisiana) 138; (overcrowded, New York) 882
immunization, B C G, and tuberculin reactions, 144
immunization, B C G, of children, effect on tuberculin tests, 599
in Australia, 1356
in children, 409—ab
in children, immunization against whooping cough, [Siegel & Goldberger] *1888
in children, intermittent attacks of pains in legs sign of, 1994
in children of infected families, tuberculin reaction negative, 1289
in children, significant aspects, [Tyson] *753
in children (young), fate, [Rosenberg] 740—ab
in contacts of children who react to tuberculin, [Wells] 1398—ab
in infants, intrathoracic calcification in tuberculin-positive, [Bradley] 1852—ab
in laboratory animals and monkeys, [Nègre] 241—ab
in medical students, England, 1374
in Negroes, 1375
in nurses, aid for, New York City, 799
incidence in Belgian coal miners, 682
incidence in silicosis, [Pope] 79—ab
Institute, Louisiana, 1370
International Union Against, (prize) 217, 1375; (tenth conference) 285
liver function test in, [Balanescu] 320—ab
marriage advisable? 1557
meeting, (Southern) 800; (Miss. Valley) 964
miliary, successive exacerbations in, [Loeschcke] 1161—ab
miliary, x-ray diagnosis [Steiner] 2167—ab
mortality in 1936, (Arizona) 960; (U. S.) 1645
prevention, 1734
prognosis, 1471
reinfection from reactivation of primary complex, [Reichle] 1075—ab
Sanatorium: See also Tuberculosis hospital
sanatorium, (Lake County, Illinois) 2074; (dedicated, N. C.) 2076
seal sale, 1645
serodiagnosis, flocculation test, [Rytz] 235—ab
serodiagnosis, Meinicke's reaction, [Fröhlich] 544—ab
serologic study, [Brandt] 396—ab
treatment, adrenal cortex extract, [Pottenger] 906—ab
treatment, Duke-Fingard method, 794—E
TUBERCULOSIS—Continued
treatment, Fleishman Fund at Mount Sinai for, 1133
treatment of latent, suspected and early clinical types, [Hetherington] *1952
treatment, salt-free diet, [Sücklin] 1675—ab
Vaccine: See Tuberculosis immunization
TUBERCULOSIS, PULMONARY, acute, in adolescents, France, 967
arm raising in, 2009
artificial pneumothorax (extrapleural) in, [Haudefeuille] 541—ab
artificial pneumothorax in, 2081
artificial pneumothorax in, arterial oxygen deficit in, [Vorwerk] 1161—ab
artificial pneumothorax in, closed and open intrapleural pneumolysis, [Anderson] 538—ab
artificial pneumothorax in, crepitant sounds indicate disappearance of air? [Kirch] 544—ab
artificial pneumothorax in, left heart arterial air embolism after, [Hall] *125
artificial pneumothorax in, massive pleural effusions in, [Rosenblatt] 1849—ab
artificial pneumothorax in, pressure in exudate formation, [Schill] 1860—ab
artificial pneumothorax in, rare form of collapse, [Abdülkadir-Lutfi] 631—ab
artificial pneumothorax in, thoracoscopy and cauterizing adhesions, [Benjamin] 315—ab
blood pressure test in, prognostic value, [Kennedy] 79—ab
blood proteins after thoracoplasty, [Lenci] 905—ab
blood sedimentation rate in, 1835
cavities, transthoracic injection of colloidal copper morrhuate, [Jacobs] 1074—ab
climate in, 1299
complications, pregnancy, [Infantozzi] 470—ab
death sudden in, [Bonnamour] 1319—ab
diagnostic induced pain of nipple, [Mazzetti] 1675—ab
diaphragmatic paralysis after, [Müller] 320—ab
exercise and rest in, [Voute] 1675—ab
heart in, (Goose) 171—ab
hematogenous, [Zavod] *1693
hemoptysis (menstrual), [Sattler] 2025—ab
in children, [Macgregor] 1583—ab; (demonstrating tubercle bacillus) [Campbell] 2104—ab
of lower lobe, [Weidman] 1849—ab
playing wind instruments in, 454
surgical treatment, airtight closure of chest after pneumolysis; use of muscle plug, [Overholt] 1938—ab
thoracoplasty in [Freedlander] 538—ab; [Lenci] 905—ab; [Semb] 1855—ab; (elastic) [Pinochietto] 2024—ab
Treatment: See also Tuberculosis, Pulmonary, artificial pneumothorax in
treatment, copper morrhuate in, 607; [Jacobs] 1074—ab
treatment, gold salts, [Courmant] 2023—ab
treatment, gold salts intrapleurally; intrapleural dilution of bands, 442
treatment, iodides contraindicated, 2009
treatment, lozenges in, caries and erosion from, 211—E
treatment of early form, lasting cure, [Amberson] *1949
treatment of night sweats, [Hofmann] 1861—ab
treatment of pleural effusion, 285
treatment, pneumoperitoneum, [Trimble] 986—ab; (in puerperium) [de Michelis] 995—ab
vitamin C nutrition in, [Martin] 1311—ab
TUBERCULUM septi, defined, 2160
TUFTS Medical School, 282; 1206
TUGWELL BILL: See also Index to Organization Section
scope, 1546—E
TUITION Fees: See Schools, Medical
TULANE University, 364; (Rudolph Matas Library) 2074
TULAREMIA after tick bite, Colorado, 716
cause of death in, [Foshay] 743—ab
diagnosis, cross reactions in agglutination tests, [Gilbert] 522—C
endemic, prevent it from becoming, 600
pneumonia (bilateral), roentgen study; specific serum for, [Blackford & Archer] *264
pneumonic from handling tick infested sheep, [Winter & others] *258
treatment, Antitularemic Serum-Mulford (data by Dr. Foshay), 504
TULCA: unbreakable lenses, 1384
TUMORS: See also under specific organs and types of tumors
dibenzanthracene, [Andervont] 84—ab
etiology, irradiation, [Hellner] 543—ab
Ewing's, of femur, [Smith] 1073—ab
experimental formation, [Sauerbruch] 1676—ab
Granulosa Cell: See Ovary tumors
hydrocarbons: 1:2 benzopyrene, 62
Institute, Chicago, 1459
like growth in leukemias, [Fleischhacker] 321—ab
Malignant: See also Cancer; Sarcoma; etc.
TUMORS—Continued
malignant, diagnosis, sedimentation speed of stored effrated blood, [Koster] 1086—ab
malignant, effect of pregnancy, [Smith] 1847—ab
malignant, metastasis, causing pathologic fractures, [Ghormley & others] *2111
malignant, time factor in irradiation, [Melnick] 613—ab
Metastasis: See Neuroblastoma; Tumors, malignant
TURNING Syndrome, [Halpern] 93—ab
TURPENTINE vapors, industrial hazard, [McConnell] *764
TUSSAMAG, 1653—BI
TUTOCAIN, value to prevent prophylaxis and treatment of seasickness, 894
TWINS, heredity vs. environment, 287
multiple dysostosis, [Hurler] 1496—ab
still-born, primary thyroid hyperplasia in, [Warren & Shipner] *575
univular, psychic variations in, 370
TYPHOID, bacillus, in drinking water, tartaric acid destroys, [Violle] 1587—ab
bacillus (killed) Intravenously to treat unduant fever, [Ervin & Hunt] *1966
bacillus, virulent antigen, [Alchelburg] 1588—ab
buccopharyngeal sepsis in, [Orgaz] 396—ab
carriers, [McBurney] 1157—ab; (epidemic due to) 593
carriers, radiation and cholecystectomy, [Elsom] 1755—ab
carriers, surgery for, [Coller] 165—ab; [Lynn] 1403—ab
carriers survey in institution, [O'Callaghan] 1081—ab
catatonia, blood cells in, [Milella] 1237—ab
diagnosis, cross reactions in agglutination tests, [Gilbert] 522—C
epidemic (from contaminated stream, England) 143; (traced to carrier, Mich.) 593; (from raw milk; in dairies, Ohio) 1207; (Brandon, Vt.) 1822; (Croydon, England) 1997; 2078
from ice cream, 1920
H Antigen Vaccine: See Neurosyphilis
immunity, thyroid hormone action on, [Rocchini] 1942—ab
immunization, advised before taking trip to Orient, 454
immunization, endotoxoid vaccine, [Grasset] 1857—ab
immunization in private practice, [Stewart & Platou] *1520
immunization (oral vs. subcutaneous), concentration of agglutinin in, [Moor] 1579—ab
leukocidin, 290—E
on German ocean liner, 800
quarantine regulations, change, Illinois, 1914
treatment, Felix's specific serum in, [Cookson] 394—ab
vaccine, fresh and stored, [Mishulow] 392—ab
vaccine injection, peripheral paralysis after, [Robinson] 164—ab
vaccine, state discontinues, New York, 1731
vaccine therapy (Nelson's) in neurosyphilis, 300
TYPHUS, differential serologic properties of rickettsia fever, [Mariani] 1258—ab
dog, or Stuttgart disease, 228
vaccination, 60; [Weigl's] [Knack] 1085—ab
TYRAMINE, chemical formula, *2065

U

UDGA Tablets, 605—BI: 1925—BI
ULCER: See also Bladder; Colitis, ulcerative; Cornea; Peptic Ulcer; and Medicolegal Abstracts at end of letter M
Leg: See Legs
phagedenic, on basis of cutaneous diabetes, [Urbach] 1767—ab
treatment, cod liver oil locally, [Epstein] 78—ab
Tropical: See also Leishmaniasis
tropical, in Africans, results of studies, 1920
ULMEANU, FLORIAN, Bouilard prize to, 291
ULTRASHORT Wave: See Diathermy
ULTRAVIOLET RAYS, Lamp: See also Sun-lamps
lamp (carbon arc), value of Landun Corporation's, 1217
lamp, Everready Carbon Arc, 1042
lamp, Fischerquartz Model Cold Mercury Arc, 563
lamp, General Electric Model F Quartz-Mercury, 1968
lamp, Health Ray Twin Carbon Arc Sun Lamp, 951
protection against, vitamin C and oil of bergamot for, [Urbach] 833—ab
ringworm in shoes destroyed by, 1563
sterilization of air in operating room, [Hart] 170—ab
Treatment: See Eczema; Syphilis treatment
UNBREAKABLE Lens Company, Tulca, 1384
UNDERGRADUATE Teaching: See Education, Medical, teaching
UNDULANT FEVER, *Archives internationale des brucelloses,* 1648
bovine origin, France, 444
diagnosis, 1218

UNDULANT FEVER—Continued
diagnosis, brucellergin intradermal, opsonic, agglutination tests, [Gould & Baddleson] •1971
diagnosis, cross reactions in agglutination tests, [Gilbert] 522—C
diagnosis, intradermal vaccine, [Ervin & Hunt] •1966
lung changes in, [Lafferty] 467—ab
orchitis from, 296; (reply) [Harris] 1300
transmission by flies, [Negro] 1084—ab
treatment, killed typhoid-paratyphoid bacillus intravenously, [Ervin & Hunt] •1966
UNEMPLOYED: See also Index to Organization Section
nutrition of, of Utrecht, 1650
young men, physique, 136—E
UNGUENSALVE, 1653—BI
UNITED STATES: See also Index to Organization Section
Army: See Army
Civil Service examinations, (for bacteriologists) 883; 965; (Children's Bureau) 1825; (for biochemist) 1997
Congress, Medical Bills in: See Legislation
Dispensatory: See Dispensatory
Navy: See Navy
Pharmacopeia: See Pharmacopeia
Public Health Service: See Health
Secretary of Agriculture report on Elixir of Sulfanilamide-Massengill, •1045; 1992—E
Treasury Department, Josephine Roche resigns from, 1646
UNIVERSAL Pain Expeller; Brand—Liniment, 1925—BI
Tonic Ginseng, 2156—BI
UNIVERSITY: See also Columbia; Harvard; Northwestern; Oxford; Yale
degrees for scientists, U. S. S. R., 59
Graduate Courses: See Education, Medical Graduates; See Graduates
hospitals, admission of nonindigent, 1465
of Brazil, reorganization, 1466
of California Library, gift to, 137
of Georgia, Council action regarding, 156
of Illinois Medical Library, gifts to, 1641
of Manchester chair of anatomy to F. Wood Jones, 516
of Minnesota, (Rockefeller Foundation gift to) 53; (graduate courses) 962
of North Dakota, Council action regarding, 156
of Paris, Professor Roussy named rector, 1648
of Pittsburgh, fever research at, 1286
of Queensland, Faculty of Medicine inaugurated in, 221
of South Dakota, Council action regarding, 156
of Tennessee department of preventive medicine, 904
semester schedule, question, Germany, 444
Students: See Students
UREA Clearance Test: See Kidney function
Treatment: See Ear diseases; Nose diseases; Throat diseases
UREMIA, diagnosis, Jaffé's color reaction for blood creatinine, [Popper] 915—ab
URETEROPYELOGRAPHY (retrograde) to check kidney function before operation, 2080
URETERS, achalasia, in children, [Hepler] •1602
calculi correlated with vitamin A deficiency sign in eye, [Erickson & Feldman] •1706
implantation in intestine, (fatalities after) [von Mikulicz-Radecki] 321—ab; [Foley] 991—ab
motor functions in pregnancy, [Cordaro] 914—ab
URETHRA, calculi, tribrom-ethanol as relaxing agent in removal, [Jarman] 745—ab
injured, danger of using local anesthetic, 2010; (prevention) [Knepper] 2025—ab
tumors (malignant) in children, [Campbell] •1809
URETHRITIS, Gonorrheal: See Gonorrhea
nonspecific, in influenza, 810
nonspecific, 1386; (from Gold-Tex condom) 2009
URIC ACID, determination, criticism, [Pinôsch] 994—ab
metabolism, cevitamic acid effect on, [Pescaramona] 1408—ab
URINARY TRACT: See also Bladder; Genito-Urinary Tract; Kidneys; Ureters; Urethra
Calculi: See also Kidneys; Ureters; Urethra
calculi, racial incidence, [Cary] 168—ab
calculi, therapeutic progress, [Barney] 620—ab
dilatations (nonobstructive) in children, [Hepler] •1602
gynecologic lesions effect on; pyelographic study, [Kretschmer & Kantor] •1097
infection, antiseptics (evaluation), [Walther] •999; (mandelic acid and sulfanilamide compared) [Helmholz] •1039
infections, mandelic acid in, [Schnehr] 322—ab; (Council report) 1989
infections, sulfanilamide in, [Kenny] 1082—ab
infection, treatment; dietary control, [Coomba] 240—ab
symptoms and abdominal diseases, [Mertz] 1400—ab
symptoms in syphilis, [Cannon] •353
URINATION, incontinence, enuresis in children, [McGregor] 468—ab
incontinence, ephedrine in enuresis, [Brookfield] 1763—ab
incontinence in women, [Muret] 1107—ab; [Kennedy] 1846—ab
incontinence, theanin and amytal in nocturnal enuresis, 1065
incontinence, treatment, 2000
incontinent patients in chronic hospital, [Langworthy] 1761—ab
involuntary and "mass reflex," [Langworthy] 237—ab
URINE, acetone, simple test, [Abels] 989—ab
Albumin in: See Albuminuria
alcohol, forensic value, [Koopmann] 243—ab
androgens in, of both men and women, [Dingemanse] 913—ab; [Koch] 1312—ab
bilirubin, simple test, [von Purjesz] 1589—ab
bismuth, rapid test, [Hanzlik] 1756—ab
estrogen and androgen excretion (daily), [Gallagher] 1679—ab; [Kenyon] 1679—ab; (in children) [Dorfman] 2169—ab
estrogens as test for cortical adrenal carcinoma, [Frank] •1121
extract as biologic diagnosis of cervical cancer, 599
lead in, evidence of lead poisoning, 71
"milky" or spermatorrhea, 294
phenylpyruvic oligophrenia, [Jervis] 2098—ab
phosphaturia, effects, 1299
porphyrinuria in pellagra, [Beckh] 1406—ab
Pus in: See Pyuria
residual after transurethral resection, 1930
selenium elimination, 2144—E
specific properties in cancer, [Aron] 1675—ab
suppression, from drinking cresol in highball, [Livermore] •1529
vitamin A in, prognostic sign, [Boller] 1162—ab
vitamin C in osteomyelitis, [Abbasy] 1492—ab
UROGENITAL TRACT: See Genito-Urinary Tract
UROLOGY, French Association, 2079
teaching to medical students, [Barnes] •610
URTICARIA gigantea perstans, pituitary solution cures, [Rosenberg-Schauss] 541—ab
hives after dye test for gallstones, 153
relation to pyuria? 893
treatment, bee venom desensitization, [Wolpe] 1409—ab
UTEROSACRAL Ligament: See Ligament
UTERUS, cancer (cervical), diagnosis (x-ray, urine extract, etc.), surgical treatment; recurrences, 599
cancer (cervical), Schiller iodine test, 297
cancer (cervical), x-rays plus radium in, 608
cancer (os), irradiation in, [den Blood] 1322—ab
cancer, pain in, intraspinal alcohol injection, 526
cancer, precancerous cervix, [Strachan] 1584—ab
cancer, treatment delayed, incidence, 1649
cervicitis as cause of leg pains, 2087
cervicitis, intravaginal tampons cause? 381
cervicovaginitis, silver picrate suppositories for, [Kobak] 1155—ab
Contractions: See Labor complications
foreign body, gold stem pessary, [Chobser & Notes] •1629
hemorrhage after menopause, [TeLinde] 828—ab
hemorrhage, (functional), 2000
hemorrhage (intentional), gonadotropic principles for, 526
hemorrhage, irradiation for, [Lafferty] 1402—ab
hemorrhage, transfusion of conserved blood plasma for [Alovski] 243—ab
hemorrhage, uteroplacental apoplexy, 1999
hemorrhage, vitamin C and iron for, [Hildebrand] 1322—ab
hemorrhages, irradiate spleen in, [Caffer] 1239—ab
hydatidiform mole, diagnosis, 803
Infantile, hormone treatment, 1838; 2090
infarct, 1464
prolapse; also fibroids, effect on urinary tract, [Kretschmer & Kantor] •1097
pyometra, or accumulation of pus, 1836
retrodisplacement (postpartum), knee-chest exercises in, [Eichner] 2102—ab
rupture, posterior pituitary extracts cause, [Junghans] 92—ab
staining tissues of biopsy from aspiration; technic, [Aglialoro] 470—ab
surgery, Esmarch's bandage for expelling blood in resection, [Holzbach] 1085—ab
tumors, myoma, (cardiac changes in) [Dietel] 1084—ab, (surgery for) [Counseller] •1687
tumors, originating in wolffian bodies, [Limburg] 543—ab
tumors, ectocopic differentiation, [Schlerer] 327—ab
UVEA tuberculosis, spots before the eyes, 523

V

V. M. (Vege-Mucene) Tablets 1653—BI
VACCINATION: See also Colds; Immunization; Smallpox; Typhus
compulsory, discussion, Netherlands, 1650
preventive, before taking trip to Orient, 454
VACCINATION—Continued
subcutaneous, remains unapproved, Japan, 1922
Weigl: See Typhus
VACCINES: See also Colds; Pneumococcus; Rabies; Typhoid; etc.
BCG: See Tuberculosis, immunization, BCG
Ducrey, use in diagnosis, [Dulaney] 2098—ab
Gonococcus: See Gonorrhea treatment
intradermal use, 1300
Kolmers: See Poliomyelitis
Ricinoleated: See Poliomyelitis
Sauer's: See Whooping Cough, immunization
Therapy: See Arthritis; Herpes simplex; Rheumatic Fever; Rheumatism
Typhoid H Antigen: See Neurosyphilis
VACCINIA: See Cowpox; Smallpox vaccination
VAGI-ANTI-SEPTIKONES, 2156—BI
VAGINA Fistula: See Fistula
surgery (plastic), epinephrine injection in, [Furber] 2106—ab
VAGINISMUS, genesis; treatment [Novak] 398—ab
VAGINITIS, colon bacillus, 975
senile, treatment, 731
treatment, endocrine, [Lewis & Adler] •1873
treatment, silver picrate suppositories, [Kobak] 1155—ab
Trichomonas: See Trichomonas vaginalis
VAJ-ASEPTIC, 1560—BI
VA-JEL, 1560—BI
della VALLE, FRANCESCO, death, 1467
VALLEY Fever: See Erythema nodosum
VALLORA Brand (orange juice), 587; (lemon juice), 1815
VAN ALLEN Hematocrit: See Erythrocytes volume index
VAN-TAGE, 65—BI
VAPOR, pulmonary reactions to, 1826
VARICOCELE, 1566; 2009
VARICOSE VEINS, esophageal, [Oppenheimer] 1667—ab
bostrum, Moone's Emerald Oil, 728—BI
saphenous, ligation plus injection for, [Johnston] •1359
treatment, injection of sodium morrhuate, reaction to (fatal), [Glick] 300; [McCastor & McCastor] •1799
treatment, injection, technic, 68
VARNISH for beer barrels, toxicity, 454
VAS DEFERENS: See Medicolegal Abstracts at end of letter M
VASODILATORS: See Tobacco amblyopia
VASOMOTOR MECHANISM, center, pituitary hormone effect on, [Seligsohn] 1768—ab
disorders, vs. fungus infection of grain, [Klein] 390—ab
instability cause of unilateral erythema of infant's face, 1747
neurosis or Raynaud's syndrome, 1927
stability, Hines-Brown Cold pressor test, 1563
VEGE-BROTH, 2156—BI
VEGEMUCENE Tablets, 1653—BI
VEGETABLES: See also under names of specific vegetables
canning, processes for, in metal containers, 1046—E
contaminated, hazards, 135—E
cooking, effect on antiscorbutic value, [Levy] 1319—ab
Ranney's Strained Unseasoned, 433
soup, Stokely's Unstrained, 1043
VEGE-TRATE Formula BF—1 (Tablets), 2156—BI
VEGEX Vitamin Yeast Candy, 1741—BI
VEINS: See also Phlebitis; Thrombophlebitis
congenital or spontaneous arteriovenous connections, [Rosenak] 63—ab
experimental obliterations and resections, [Fontaine] 175—ab
jugular (internal) ligation in lateral sinus thrombosis, [Nortick] 241—ab
murmurs (continuous) of right interscapulovertebral space, [Lian] 1587—ab
Occlusion (Therapeutic): See Blood Vessels, diseases
Renal: See Thrombophlebitis
Saphenous: See Varicose Veins
VELUM pendulum, mixo-endothelioma within, rare syndrome from, [Simcox] 242—ab
VENA CAVA, superior, continuous murmur of, [Lian] 1587—ab
superior, ligation and chylous effusions, [Robinson] 1577—ab
VENEREAL DISEASE: See also Chancroid; Gonorrhea; Lymphogranuloma Venereum; Syphilis; Medicolegal Abstracts at end of letter M
campaign, junior Chamber of Commerce to cooperate in, 1916
control (new marriage license law, Illinois) 52; (conference on, New Jersey) 139; (Germany) 288; (new regulations, France) 369; (California) 880; 1913; (Alabama) 1205; (Ohio) 1461; graduate instruction in) 2071—K; (clinic, Miss.) 2075
decline in, England, 143
Prevention Foundation: See Index to Organization Section
record book for patients, France, 145
treatment, free drugs for, (Alabama) 797; (Michigan) 1914
VENESECTION, effect on vital capacity of lung, [Budelmann] 319—ab

VENOM: See Bee venom; Snake venom
Treatment: See Arthritis; Paralysis agitans
VENTILATION: See also Air conditioning
requirements, [Yaglou] *947
VENTRICULAR FAILURE: See Heart insufficiency
VERONAL: See Medicolegal Abstracts at end of letter M
VERRUCA, flat, bismuth subsalicylate for, 610 (correction) 801
infective, in workers using bone glue, [McLaughlin] 1857—ab
"milker's warts," [Bonnevie] 85—ab
seborrheic, 1746
treatment, injecting sclerosing agent, [Hutton] 823—ab
VERTEBRA: See Spine
VERTIGO, aural, Ménière's disease, 2010; (intracranial surgery of auditory nerve) 2000
cause of dizziness in head injuries, [Glaser] 742—ab
perforation on syringing discharging ear, 609
VESINES, 1376
VETERANS: See also Index to Organization Section
Administration, annual report, 56
nurturing a national neurosis, [Aring & Bateman] *1092
VICHY Water Powders (Artificial), 1741—BI
VICTORY Vapor Balm, 1653—BI
VIDEX, 2085—BI
VIN, Vigorans, 1741—BI
VINCE, burns of oral mucosae from, 731
VINETHENE, (Council report) 656; (N. N. R.) 658
VINYL resins, toxicity of, used in lining beer cans, 891
VIOSTEROL A. R. P. I. Process in Oil, 1126; 1567
allergy in infants, 452
Condol and Ertron, 132
placenta calcification from use in pregnancy [Brehm] 1400—ab
VIRILISM adrenals in (specific staining reaction) [Broster] 166—ab; (demonstration by perirenal air insufflation), [Mencher] *1259
androgen and estrogen excretion in, [Kenyon] 1670—ab
arrhenoblastoma, [Föderl] 1493—ab
VIRUS: See also Choriomeningitis; Colitis, ulcerative; Foot and Mouth Disease; Influenza; Lymphogranuloma Venereum; Rabies; etc.
fluorescence microscopy, [Hagemann] 243—ab
VISCERA, culture method for, in Lindbergh apparatus, 1210
isolating poisons from, [Stewart] 2104—ab
pathology in measles, [Degen] 742—ab
VISION: See also Blindness; Eyes; Glasses; etc.
after retinal detachment operation, [Reese] 462—ab
best lighting for dormitories, 609
Conservation: See Blindness, prevention
loss of, percentage, 1474
Tests for Automobile Drivers: See Index to Organization Section
tests given by opticians, England, 286
VISSCHER-BOWMAN Test: See Pregnancy diagnosis
VITAL CAPACITY, variability, [Arnett] 163—ab
venesection effect on, [Budelmann] 319—ab
VITAL STATISTICS: See also Population; Medicolegal Abstracts at end of letter M; Index to Organization Section
birth rate, France, (marriages and) 145; (variations) 369; 803; 885
birth rate, Germany, 1212
birth rate increase, Russia, 60
birth rate vs. death rate, England, U. S., etc., 1616—E; 1722—E
births, number to a marriage, [Cadwallader] 156—C
death rate, Italy, 2153
death rate, variations, France, 369
morbidity and League of Nations, 2142—E
Mortality: See Cancer; Infants, mortality; Tuberculosis; etc.
of Australia, 221
of England, 2078
of Illinois, 213
of Japan, 289; (control bill) 887
registration of births and deaths, centenary, England, 143
sex ratio in human species, 1136
VITAL-EX, 1566—BI
VITAMINS, A and D preparations, dosage, Council recommendation, 507
A, crystalline, isolation of, 1992—E
A, D, B complex and C, immunizing effect, 714—E
A deficiency, in adults vs. auto driving at night, [Jeghers] *756 (correction) 965
A deficiency, ocular signs (Feldman's dark adaptation test), [Erickson & Feldman] *1704
A deficiency, relation to kidney calculi, [Vermooten] *857; [Randall & others] *1699; [Erickson & Feldman] *1706
VITAMINS—Continued
A, elimination in feces, [Wendt] 1321—ab
A in halibut viscera (not liver), [Lovern] 1406—ab
A in human blood serum, [Stepp] 1868—ab; (in pneumonia) [Lindqvist] 1861—ab
A in urine a prognostic sign, [Boller] 1162—ab
A, international units per ounce of food, [Jeghers] *758
A preparations, hydroquinone as "stabilizing" agent, Council report, 1454
A reserves in health and disease, 590—E
A, sources and stability, 1659
A treatment of burns, 145
A treatment of keratomalacia, [Aykroyd] 1236—ab
A, utilization and carotene, 1045—E
A utilization, effect of mineral oil in foods, Council report, 1814
amount needed in low calory diet for obesity, 610
B complex and nicotinic acid, [Funk] 2086—C
B complex, Kinney's Yeast Extract containing, 276
B complex treatment of funicular spinal disease, [Pfaffenberg] 636—ab
B complex, use in restoring natural color to gray hair, 305
B_1 and B_2 content of flour and bread, 1054
B_1 and fatty livers, [McHenry] 173—ab
B_1, C, D treatment of chronic articular disorders, [Mallwa] 1596—ab
B_1 hydrochloride, thiamin chloride common name for, Council report, 952
B_1 hydrochloride treatment of x-ray sickness, [Martin] 2097—ab
B_1 intake, relation to infant's mental and physical growth, [Colby] 1846—ab
B_1 rôle in cardiovascular diseases, [Weiss & Wilkins] *788; [Jones] 823—ab; [Weiss] 986—ab
B_1, Squibb Yeast Tablets, 1127
B_1 treatment of deafness, 1930
B_1 treatment of herpes zoster, 71
B_1 treatment of nervous diseases, [Helman] 1084—ab
B_1 treatment of spasmophilia, [Widenbauer] 397—ab
B_1, utilization and retention in children, 33—E
B_2: See Riboflavin; Vitamin G
B_4, new dietary factor in mammalian liver, [Halliday] 967—ab
C: See also Acid, cevitamic; Scurvy
C and capillary rupturability, 1054
C and concentrated milk for isolated camps, 66
C and heat regulation, [Hasselbach] 1588—ab
C, blood changes in tuberculous patients after, [Radford] 390—ab
C, Cebione N. N. R., 359
C deficiency, relation to rheumatic fever, [Weiss & Wilkins] *791
C deficiency, rôle in cardiac disorders, [Weiss & Wilkins] *793
C deficit in pregnancy, [Gashtgens] 470—ab
C, effect on blood coagulability, [Terazawa] 1941—ab
C in Blood: See Blood, cevitamic acid
C in rheumatic disease, [Rinehart] 1394—ab
C in Urine: See Urine
C, Nobel prize to Szent-Györgyi, 1733; 1912—E; 2153
C nutrition in pulmonary tuberculosis, [Martin] 1311—ab
C protects against ultraviolet rays, [Urbach] 833—ab
C, relation to infection, 288; [Faulkner] 535 ab; [Harris] 1492—ab
C, rôle in progressive muscular dystrophy, [Hirata] 996—ab
C, rôle in pyorrhea alveolaris, 797—E
C, treatment of genital hemorrhages in essential thrombopenia, [Hildebrandt] 1321—ab
C treatment of necrotic diphtheria, 601
C treatment of poliomyelitis, [Jungeblut] 1758—ab
carbohydrate metabolism and, [Schroeder] 2109—ab
content of common foods; tables, 1204—E
D: See also Cod Liver Oil; Rickets; Viosterol
D, adding to cereals, Council report, 30
D and arthritis, Council report 132
D and hepatic function, 2073—E
D, antigenic characteristics, [Stoll] 1239—ab
D deficiency, rôle in heart disease, [Weiss & Wilkins] *791
D, effects on caries during pregnancy, (reply) [Gordon] 733
D, hypervitaminosis, [Hubbard] 1669—ab
D, massive doses; pathologic studies; contraindications, 151
D Milk: See Milk
D treatment, rickets resistant to, [Albright] 1397—ab
D_2 and D_3, difference in action, [Brockmann] 1943—ab
deficiency, rôle in cardiovascular disease, [Weiss & Wilkins] *788
deficiency syndrome in chronic alcoholism, [Romano] 2096—ab
effects on tumor threshold, [Davidson] 2169—ab
VITAMINS—Continued
E, [Young] 314—ab; [Martin] 465—ab
F: See Acid, linoleic; Vitamin B_2
G: See also Riboflavin
G, Squibb Yeast Tablets, 1127
hormones in relations to, 1210
importance to surgery, 146
in soap, skin absorption, 509—E
in spinach and tomatoes, [Tisdall] 1760—ab; (spinach only, Council report) 1907
K, [Quick] 66—C
P, Szent-Györgyi research on, 1912—E; 2154
poliomyelitis and, [Toomey] 77—ab
VITA-PINE Bathol, 1925—BI
VITILIGO, neuro-endocrine apparatus, 2153
VITREOUS HUMOR, muscae volitantes, 523
preretinal connective tissue formation in, [Knapp] 1937—ab
VOCAL TEACHER, cooperation with laryngologist, [Ridpath] *545
VOCATIONAL GUIDANCE, use of tests in, 2151
VOICE, conditions in stutter-type child, [Greene] *1167
VOLATILE Solvents: See Solvents
VOLHARD'S Test: See Kidney function test
VOMITING: See also Seasickness
acetonemic, attacks from ketogenic diet, [Heymann] 83—ab
ketonemic in diabetic children, [Hungerland] 2108—ab
of Blood: See Hematemesis
of Pregnancy: See Pregnancy
VOXOL, 2005—BI
VULVA Pruritus: See Pruritus

W

WALKER, JOHN THOMSON, death, 1522; 1647
WALKING: See Claudiation, intermittent; Running
WALTER'S Radiant Hair Rejuvenator, 1741—BI
WAR: See also Army; Military; Soldiers; Veterans; etc.
abdominal wounds in, 1649
as a disease, 721
future methods, and medicine, 1646
Gas Warfare: See Gas
in China: See Chinese-Japanese War
injury of bladder, treatment, 1288
injury of eye from mustard gas, 516
International Peace Campaign, 1918
Risk Insurance: See Medicolegal Abstracts at end of letter M
Vienna's World War memorial to physicians, 600
WARD'S Vitamized Tonic Tablets, 2156—BI
WARTS: See Verruca
WASHINGTON State Medical Association: See Index to Organization Section
WASSERMANN TEST, blood for, conserved with neutral sulfate of oxyquinoline, 58
Fast Syphilis: See Syphilis
in maternity work, [Mackay] 1594—ab
in prenatal syphilis, [Cole] *284
positive cord, not reliable test of syphilis in new-born, [Davies] 451; [Cormia] 1065; [Heller] 1654—C; 1930
positive, in gastric adenocarcinoma, 609
positive, in unresolved pneumonia, 1300, (reply) [Robertson] 1839
significance, [Cannon] *357; 1564
WATER: See also Bath; Swimming; etc.
blood pressure (venous) after ingestion, [Audap-Souble] 1943—ab
contaminated stream and wells, typhoid outbreak from, England, 143; 1997; 2078
Elimination, Volhard's Test: See Kidney function test
exchanges in lungs in decompensated heart disease, [Calabresi] 1494—ab
in Blood: See Blood
infusion fluids, preparing, [Co Tui & others] *250
microorganisms in, tartaric acid destroys, [Violle] 1587—ab
Mineral: See Mineral Waters
salt distribution in nursling, [Kerpel-Fronius] 756—ab
supply, brass plumbing, 299
supply, deadline for Indiana cities to stop lake pollution, 1206
supply, fluorine in, (New Mexico) 881; (removal) [Elvove] 1581—ab
supply, London's, in air raids, 516
supply, model village at Paris exposition, 1289
supply, oil in, 1838
Therapeutic Use: See Hydrology
WATKINS Brand Salt, 1815
WEATHER: See also Climate
diabetes and, 229
effect on eye disorders, 1738
WEBER-CHRISTIAN Disease: See Panniculitis
WEEDS, contact dermatitis; "blisters" on legs and feet probably due to, 812
WEGNER Brand (apple sauce) 587; (tomato juice) 1455
WEIGHT: See Body weight
WEIGL'S Vaccination: See Typhus
WEIL'S Disease: See Jaundice, spirochetal
WELDING, electric arc, 975

V 1
193

WEST VIRGINIA University, Council action on, 156
WESTERN Reserve University, 1461; 1732
Surgical Association, 2077
WESTINGHOUSE Electric Company gift for research in fever therapy, 1286
WHEAT Cereals: See Cereals
germ extract, Squibb Yeast Tablets, 1127
vitamin B_1 and B_2 in flour and bread, 1654
WHEELER-LEA BILL: See also Index to Organization Section
scope, 1546—E
WHISTLE, Edelmann-Galton, use, 154
WHITE CROSS Quinine and Iron Tonic, 1653—BI
WHITE'S Herb Tonic, 1653—BI
WHITE HOUSE Brand Condensed Milk, 1455
WHITEHORN Test: See Blood, epinephrine
WHOOPING COUGH, complications, leukocytosis (extreme) [Pearson] 1159—ab
complications, leukemia, [Levy] 537—ab
immunity, measuring, 1458—E
immunization, [Stewart & Platou] *1520
immunization of tuberculous children with Sauer's vaccine, [Siegel & Goldberger] *1088
municipal control, Evanston, [Sauer] *487
treatment, calcium orally, [Fillion] 2172—ab
treatment, cevitamic acid, [Ormerod] 1076—ab
treatment, x-ray, 1384
vaccine, distribution discontinued, 718
WIDMARK TEST: See Blood, alcohol
WILHARM'S Salve, 1653—BI
WIND Instruments: See Saxophone
WINE, alcohol poisoning in breast fed infant from mother, [Wyckerheld Bisdom] 178—ab
drinking and nutrition, South Africa, 61
serving, obligatory in restaurants, Hungary, 1291
WINKING: See Jaw-Winking Phenomenon
WINSLOW, FLOYD S.: See Index to Organization Section
WINTERGREEN, Oil of: See Methyl Salicylate
WINTROBE Hematocrit: See Erythrocytes
WISCONSIN: See also Index to Organization Section
Hall of Health, 1650; 1131—E
WITNESSES: See Evidence; Medicolegal Abstracts at end of letter M
WITTONE, 2005—BI
WOLFFIAN BODY, uterine tumors originating in, [Limburg] 543—ab
WOMEN in Medicine: See Physicians, Women; Students, Medical, women
WOOD, D. J., death, 61
WOOD Tick: See Ticks
workers, cedar poisoning predispose to lung infections? 1744
WOODBURY'S soap, skin absorption of vitamins in, 509—E
WORD Blindness: See Aphasia, visual
WORDS AND PHRASES: See Terminology; Medicolegal Abstracts at end of letter M
WORK: See also Industrial
for cardiac patients, 1829
WORKMEN'S COMPENSATION ACTS: See also Medicolegal Abstracts at end of letter M
eye injuries and, 894
trauma and Charcot joints, 1927
WORKS PROGRESS ADMINISTRATION: See Index to Organization Section
WORMS: See Intestines parasites
WOUNDS, healing, asymptomatic scurvy and peptic ulcer, [Ingalls] 1498—ab
healing, cod liver oil in, [Löhr] 1676—ab
infected, in hemophilia, maggot therapy, [Pohle & Maddock] *2055
Surgical: See Abdomen
treatment, crude petroleum for abrasions, 1300
treatment, pectin, 1283—E
WRIST, surgery, nerve irritation from fibrosis after, 68
tumor, ganglion, 1929
WRITING, booked for a fall, 785—ab
WTC Anti-Pollen Salve, 728—BI

X

XANTHOMA, inflammation in surgical diseases, [Biebl] 1765—ab
tuberosum in tile setter, [Sugg & Stetson] *414
XEROPHTHALMIA, clinical study, [Ayuyao] 1316—ab
XERVAC, Crosley, 1635
XYLENE, industrial hazard, [McConnell] *764

Y

YALE University, cancer fund given to, 51
YAWS: See Frambesia
YEAST, effect of short or ultrashort wave irradiation on, [Wertheim] 1496—ab
effect on liver glycogen in hyperthyroidism, [Drill] 1855—ab
Fleischmann's, Council report, 276
irradiated, feeding to cows to produce vitamin D milk, Council report, 1814
Squibb Yeast Tablets, 1127
YELLOW FEVER, etiology, [Coles] 1763—ab
Noguchi and Young memorial, 217
rural, virus of, 1466
spread of, and air traffic, 1204—E
urban, epidemic, [Walcott] 2017—ab
vaccination of aviators, 719
YELLOW OB, food dye, [Climenko] *493
YERKES White Liniment, 1906—BI
YOUNG, WILLIAM ALEXANDER, memorial, 217
YOUTH: See Adolescence

Z

ZANN-ITE, 2005—BI
ZINC chloride, toxicity of soldering process, 895
Ionization: See Rhinitis, Vasomotor
Protamine Zinc Insulin: See Diabetes Mellitus, insulin in
Sulfate Spray: See Poliomyelitis, prevention

109
37

AUTHOR INDEX

In this Index are the names of the authors of articles which have appeared in The Journal, the names of those who have read papers before Societies as published in The Journal and those whose articles have been abstracted in the Current Medical Literature Department. The * preceding the page reference indicates that the article appeared in full in The Journal.

For subject index see page 2175.

A

Abbasy, M. A., 1492
Abdülkadir-Lutfi, 631
Abell, I., 238, *1241
Abels, J. C., 989
Abrahamson, E. M., 1402
Abramson, H., *475
Abshier, A. B., 987
Acuña, M., 1860
Adelheim, R., 471
Adler, E. L., *1873
Adler, H., 916
Adlersberg, L., 748
Aglialoro, M., 470
Aguilar, H., 2024
di Aichelburg, U., 1588
Aliso, M., 829
Albright, F., 1397
Aldrich, C. A., 1760
Alexander, J., 538
Alexander, W. A., 1583
Allen, A. W., *923
Allen, E. V., *549
Allen, K. D. A., 905
Allen, P. D., *121
Allison, V. D., 173
Almour, H., 908
Alovski, A., 243
Alpers, B. J., 307
Altschule, M. D., 1938
d'Amato, H. J., 2024
Amberson, J. B., Jr., *1949
Ambre, 1319
Ames, A., 1672
Amsler, C., 1240
Anderson, C. M., *1788
Anderson, D. F., 87
Anderson, L. E., 822
Anderson, R. S., 538
Anderson, T., 910, 1159
Andervont, H. B., 84
Andolf, N., 998
André, C. P., 1407
Andreis, N., 749
Andrews, F. L., *431
d'Antona, D., 396
Antopol, W., *1192
Archer, H. E., 1585
Archer, V. W., *264
Archinard, J. J., *1008
Ardashnikov, S. N., 173
Arena, J. M., 741
Aries, L. J., 312
Aring, C. D., *1092
Armstrong, C., *410
Armstrong, H. G., *417
Arnett, J. H., 163
Arnold, L., 1575
Arnott, W. M., 86
Aron, E., 830
Aron, M., 1675
Ascher, K., 1589
Ashley, F., 1231
Ashman, R., 461
Askenasy, H., 2107
Ask-Upmark, E., 629
Atkinson, A. J., 461
Atnan, A., 751, 1162
Aub, J. C., *1276
Aubin, A., 89
Audap-Soubie, P., 1943
Auerbach, T. S., 1493
Ault, C. C., *1786
Aykroyd, W. R., 1081, 1236
Ayuyao, C. D., 1316

B

Baastrup, C. I., 322
Baccarini, L., 1765
Bachem, A., 618
Bachmann, G., 1579
Badgley, C. E., 78
Baehr, G., 535
Baer, H. L., 1234
Bagwell, J. S., Jr., 1582
Bahls, G., 630
Bailey, A. A., *2136
Bailey, K. V., 1585
Bailey, O. T., 2104
Bailey, R. J., *1419
Baker, A. B., 1073
Baker, F., 1394
Baker, R. D., *10
Balanescu, I. V., 320
Balcerski, M., *1983
Balgairies, E., 317
Ballenger, E. G., *1037
Bancroft, F. W., 2017
Bankoff, G., 832
Bannick, E. G., *1257
Barach, A. L., 622, 2018
Barbanente, F., 1237
Barbèra, G., 1588
Barer, A. P., 165, 1853
Bargen, J. A., 84
Barker, L. F., *785
Barker, M. H., 1852
Barker, W. H., 1485, 1487
Barksdale, E. E., 1855
Barnacle, C. H., *111
Barnes, A. R., *1347
Barnes, R. W., *640, *1184
Barnes, W. A., 307
Barnett, C. W., *1715
Barnett, E. J., *846
Barney, J. D., 620
Baron, H. A., 1578
Barowsky, H., *422
Barr, J. S., *1265
Barron, E. S. G., 824
Barsky, M. H., 466
Bartels, E. C., 621
Barton, F. E., *2044
Bascapè, A., 176
Bassler, A., *864
Bate, R. A., 1939
Bateman, J. F., *1092
Batson, O. V., 1562
Battaglia, A., 832
Bauer, H., 93
Bauer, J., *1442
Bauer, W., 537, 1153
Bauersfeld, E. H., *16
Baumann, J., 241
Baxter, H., 1762
Beall, L. L., 1561
Bearse, C., *1626
Beck, C. S., *1781
Beck, F. F., 2019
Beck, M. D., *566
Becker, F., 175
Beckermann, F., 1767
Beckh, W., 1406
Bedford, T. H. B., 1080
Begg, N. D., 87
Belinfante, A. J. G., 398
Bell, A. C., 625
Bell, E. T., 985
Bell, J. W., 536
Belletoille, P., 89
Beloff, H. M., 1074
Beltrametti, L., 176, 176
Benassi, E., 831
Bendien, W. M., 1846
Benedict, W. L., *473
Benjamin, J. D., *1249
Benjamin, P. V., 315
Bennett, G. A., 537
Bennett, G. E., *1120
Bensley, E. H., 309
Bent, M. J., 164
Bentivoglio, G. C., 995
Benzadón, J., 242
Berens, C., 237, *777
Bergeret, A., 830, 830
Bergh, G. S., 1078
Berghausen, O., 1074
Bergmark, G., 998
Berkheiser, E. J., 313
Berman, L., 826
Berman, T. M., 908
Bernay, P., 1237, 1942
Bernheim, A. R., 523, 1853
Bernstein, C. Jr., 2018
Berri, H. D., 749, 1238
Bertelsen, A., 244, 1496
Bertola, A., 1238
Bespaloff, M., 748
Best, R. R., 1580, 1855
Best, W. H., *475
Beumer, H., 750
Biasini, A., 469
Biebl, M., 1765
Bierman, W., 821, *867
Bigg, E., *328
Binet, M. E., 241
Bing, J., 1086
Binger, M. W., *1
Binkley, R. W., 467
Bird, C. E., *1626
Bisgard, J. D., 1077, 1672
Black, M. D., 240
Blackford, L. M., *262
Blackford, S. D., *264
Blacklock, J. W. S., 1405
Blackman, S. S., Jr., 824
Blake, F. G., *642
Blake, H., 1397
Blalock, A., 1577
Bland, E. F., 1308
de Blasi, A., 242
Bliss, E. A., *1524
Bloch, C., 751
Bloch, L., *27, *204
Block, M., 1850
Bloomberg, E., 1397
Blumberger, K., 1409
Blumstein, G. I., 606
Bocage, A., 628
Boch, J., 1078
Bock, H. E., 2108
Bohlman, H. R., *254
Boivin, A., 628
Boller, R., 321, 1162
Boman, P. G., *1176
Bonnamour, 1319
Bonnard, 1237
Bonnevie, P., 85
Boon, W. R., 1583
Borchard, A., 997
Borchardt, H., 913
Bordo, H. E., 2024
Borgen, D. R., 167
Boros, E., *113
Borst, J. G. G., 829
Borthwick, G. R., 85
Bosco, I., 1676
Bowers, W. F., 1078
Bowman, P. N., *18
Boyd, E. M., 744, 1317
Boyd, J. D., 2095
Boyer, S., Jr., 1854
Bozicevich, J., *570, 1315
Braasch, W. F., *1703
Brahdy, M. B., 2006
Brailey, M., 1852
Bram, I., 1233
Branch, C. F., *2044
Branch, H. E., 1313
Brander, T., 322
Brandt, R., 396
Branham, S. E., 312, 1234, 1235
Breen, G. E., 626
Brehm, W., 1490
Bretey, J., 241
Breuhaus, H. C., *191
Briggs, J. F., 393
Briskas, S. B., 1083
Bristol, L. D., *245, 1848
Bristow, L. J., 991
Broadhurst, J., 1759
Brock, R. C., 1318
Brockmann, H., 1943
Brodaty, E., 1162
Brodie, E. L., 1938
Brodin, P., 89
Brody, M. W., 1833
Brookes, T. P., *6
Brookfield, R. W., 1763
Broster, L. R., 166
Broun, G. O., *1027
Browder, J., 617
Brown, A. I., *1802
Brown, C. L., *268
Brown, H. E., 747
Brown, I. L., 1579
Brown, M. G., *256, 743, 1485
Brown, P. W., *1328
Brown, W. A., 173
von Brücke, H., 1322
Brunerie, A., 748
Brunner, O., 1162
Brunner, W., 92
Brunschwig, A., 1080
Bryan, W. J. Jr., *573
Buckley, A. C., 81
Bucy, P. C., *1007
Budelmann, G., 319
Büngeler, W., 1321
Bule, L. A., *917
Buirge, R. E., 2017
Bullowa, J. G. M., *1323, *2058, *2061
Bundesen, H. N., *337
Burceva, E., 243
Burch, E. P., Jr., 1403
Burch, J. C., *1869
Burke, E. M., *2121
Burstein, C. L., 1313
Butler, A. M., 1397, 2099
Butler, H. M., 1236
Butsch, W. L., *1591
Buttle, G. A. H., 626

C

Cachera, R., 2107
Cade, A., 1237
Cade, R., 1319
Cadwallader, R., 150
Caffier, P., 1239
Cahan, J. M., 535
Cairns, H., 1856
Calabresi, M., 1494
Callahan, R. H., *1511
Callaway, J. L., 2018
Cameron, D. E., *1246, 2096
Cameron, D. F., 80
Campana, C., 1084
Campanacci, D., 395
Campbell, E., 311
Campbell, H. B., 1849
Campbell, J. A., 624
Campbell, M., 173
Campbell, M. F., *1606
Campbell, S., 2104
Campbell, W. C., *1105
Campos, R., 2108
Cann, R. J., 1318
Cannon, A. B., *348
Cannon, P. R., *1536
Cantarow, A., 464
Canuyt, G., 2107
Capps, J. A., *852
Carey, W. C., 389
Carez, C., 1493
Carlinfanti, E., 319
Carlson, L. A., 312
Caroli, J., 830
Carpenter, C. M., *1428, *1430
Carpenter, G., 317
Carr, C. J., 2019
Carrera, J. L., 176
Carrez, P., 2171
Carrière, G., 830
Carter, C. F., 1582
Cary, M. K., 168
Cassasa, C. S. B., *1886
Casselman, E. J., *95
Castex, M. R., 994
Catherwood, R., 620
Catlin, C. H., 240
Cattell, R. B., 745
Cavallo, M. E., *2139
Cecil, R. L., 1153, *1323, 1937
Cella, C., 1494
Chadwick, H. D., 1926
Chamberlain, W. E., 1235
Chamberlin, G. W., 1755
Champy, C., 912
Chandler, F. A., *1411
Chaney, L. B., 236
Chang, C. C., 2171
Chang, F. C., 627
Chang, S. L., 911
Chaplin, C. A., 171
Chapman, E. M., 826
Chapman, G. H., 237
Chargaff, E., 2017
Chasovnikov, P. G., 632
Chatagnon, C., 89
Chatterji, S. K., 2104
Chaudhuri, M. N. R., 1584
Chaudhuri, R. N., 1584
Cheavens, T. H., 1582
Chernaya, L. A., 1085
Chickering, H. T., *1323
Chitnis, V. K., 2104
Choisser, R. M., *1628
Chopra, R. N., 2105
Chorine, V., 912
Choy, F., 1394
Christensen, S., 472
Christiaens, L., 317
Ciantini, F., 1083
Cicchitto, A. M., 1588
Cicchitto, E., 1588
Cignolini, P., 1943
Ciminata, A., 318
Clahr, J., *195
Clark, A. R., 2100
Clark, E., 309
Clark, J. C., *1038
Clarke, C. W., *1021
Claude, H., 1237
Clayton, G. E. B., 627
Climenko, D. R., *493
Cobb, S., 1153
Cobey, M. C., *1120
Code, C. F., 1405
Cohen, A. E., *115
Cohen, M., 79
Cohn, L. C., 1850
Colby, M. G., 1846
Cole, H. N., *580
Cole, R. I., *2059
Coleman, C. C., 165, *1613
Coles, A. C., 992, 1763
Coles, B. C., 310
Collens, W. S., *2125
Coller, F. A., 165, *2130
Collet, F. J., 1082
Collier, J. L., *1959
Collins, D. H., 1405
Collip, J. B., 462
Colton, W. A., 310
Coltrin, G. S., 1757
Colver, T., 1583
Colwell, H. A., 992
Cone, W., 1851
Connell, F. G., 1311
Connell, W. F., 744
Consolazio, W. V., 392
Consoli, D., 242
Cook, D. D. M., 1316
Cook, L. C., 1492
Cooke, A. M., 1081
Cookson, H., 394
Cooley, T. B., 1846
Coombs, H. I., 240
Coon, J. M., *1532
Coope, R., 1586
Cooper, E. L., 316
Cooper, P., 1938
Corcoran, W. J., 166
Cordaro, G., 914
Corelli, F., 1765
Corwin, E. H. L., *1323
Cory, C. W., 77
Cosentino, G., 1943
Coste, J. H., 171
Cottam, G., 1926
Co Tui, *250
Coujard, R., 912
Counseller, V. S., *1687
Courmont, P., 2023, 2023
Courville, C. B., *1184
Cousins, S. M., 391
Cove-Smith, R., 316
Cowen, D., 1399
Cox, L. B., 540
Cramer, A. J., Jr., *101
Cramer, W., 740
Crawford, R. R., 537
Crebbin, J. T., 2101
Crile, G., 1397
Crile, G., Jr., 1397
Critchley, M., 171
Crohn, B. B., 169
Cruchet, R., 2171
Cruz, E., 2017
Cuilleret, P., 395
Culmer, C. U., 461
Cummer, C. L., *495
Cummins, J. A., 1061
Cunningham, R. S., 1577
Curcio, L., 237
Cutting, W. C., 2019, 2020

D

Dack, S., *546
Dahl-Iversen, E., 834
Dahms, O. A., *337
Dameshek, W., *561
Dandy, W. E., 1849
Darrach, W., 1758
Das Gupta, B. M., 2105
Das Gupta, C. R., 747
Davidoff, L. M., 1575
Davidovich, 916
Davidson, J. R., 2169
Davies, J. A. V., 465, 537
Davis, C., *1363
Davis, H. A., 1313
Davis, M. E., *1631
Davison, M., 312
De, R. K., 625
Debré, R., 628
Decherd, G. M., Jr., 174, 167
DeCourcy, J. L., 618
Defrance, M., 628
De Francois, W., *253
Degen, J. A., Jr., 742

Degkwitz, R., 833
Delannoy, E., 830
Delaunay, A., 1675
Delbos, J., 469
Denning, D., 1940
Dennis, C., 2017
Denny, E. R., 622
De Orsay, R. H., 163
Deren, M. D., 1157
Dereux, J., 1493
Derieux, G. D., *10
Derrick, E. H., 627, 747, 1586
de Savitsch, E., 390
Devic, 2172
Dewing, T., 626
Dexter, R., *495
Díaz de León, A., 1940
Díaz Nielsen, J. R., 1676
Dicker, E., 994
Dickerson, D., 1231
Dickey, L., 905
Dickinson, J. R., 1318
Dickson, E. C., 66, 1757
Dietel, H., 1084, 1944
Dieuaide, F. R., 627
Diez, J., 176
Dill, D. B., 392, 824
Dimock, E. M., 240
Dingemanse, E., 913
Dinsmore, R. S., *179
Dintenfass, H., 827
Discombe, G., 1585
Doane, J. C., *578
Dodds, E. C., 1318
Doisy, E. A., 1312
Dominick, DeW., *247
Donohue, P. F., 1489
Donovan, E. J., *558
Dorfman, R. I., 1670, 1670, 2169
Doub, H. P., *1188
Doubilet, H., 165
Douglas, B. H., *771, 1398
Douglas, R. C., 167
Dowden, C. W., *1197
Dowding, E. S., 992
Dowling, H. F., 2020
Downing, J. G., 391
Drake, T. G. H., 1760
Drawe, C. E., 461
Dreyfus, J. R., 241, 1085
Dreyfus-Le Foyer, 541
Dreyfuss, M., 2107
Drill, V. A., 1853
Drooker, J. C., *1180
Dublineau, J., 1237
Duggan, A. R. H., 2106
Duggan, J. N., 2104
Duggan, W. F., *1354
Dulaney, A. D., 2098
Duncan, G. A., 309
Dunlop, D. M., 394
Duplant, 1319
Durupt, A., 1237
Dyke, C. G., 1575
Dyniewicz, H. A., *200
Dyrenforth, L. Y., 1851

E

Eagle, H., 536
Eagles, G. H., 1585
Eagleton, W. P., 823
Eason, J., 317
Eaton, J. C., 316
Ebaugh, F. G., *111, *1249
Ebich, E. M., 544
Edelen, C. M., 907
Edington, J. W., 1857
Edisbury, J. R., 1406
Edmunds, C. W., 1670
Edwards, H. T., 392, 824
Eger, W., 2025
Eggermann, A., 541
Ehrenpreis, E., 178
Ehrström, C., 752
Eichner, E., 2102
Eiman, J. E., *1698
Elder, O. F., *1037
Eliaser, M., Jr., 740
Eliason, E. L., *848
Ellery, R. S., 2106
Ellinger, P., 1406
Ellis, M. D., *1718
Ellis, M. M., *1718
Ellison, E. T., *1869
Ellman, P., 468
Elsom, K. O., 1755
Elvehjem, C. A., 989
Elvove, E., 1581
Elward, J. F., 1155
Emerson, K., Jr., 2019, 2020
Engelbreth-Holm, J., 472
Epstein, E., 78, *117
Epstein, I. M., 462
Erhard, P. S., 167
Erkelens, A. D., 1678
Ersner, M. S., *919
Ervin, C. E., *1966
Espersen, T., 2026
Evans, H. M., 907
Evans, P. J., 1583
Evans, P. R., 1585
Ewalt, J. R., *111
Eyerly, J. B., *191
Ezickson, W. J., *1706

F

Facey, R. V., 394
Fajerman, H., 244
Falchetti, E., 396
Fallis, L. S., 617
Falls, F. H., 84
Fantus, B., 84, *128, *200
Farrand, B. C., *258
Farrington, C. L., 1758
Fasting, G., 1581
Fatzer, H., 541, 1083
Faulkner, J. M., 535
Faure, G., 1942
Fauvert, R., 2107
Fehr, A., 1766
Feil, H., *1781
Feinsilver, O., *561
Feldman, H., *1119
Feldman, J. B., *1706
Feldman, W. H., 2168
Feller, A. E., *1712
Felshin, G., *1863; (correction), 1997
Fenton, R. A., 536
Fenz, E., 751, 1162
Ferguson, L. K., 2017
Ferracani, R. S., 242
Ferrannini, A., 1238
Ferrell, J. A., *835
Festen, H., 1408
Fetter, F., 2017
Fetterman, J. L., 1668
Fienberg, R., 744
Fiessinger, N., 830
Filatov, A. N., 1410
Fillion, H., 2172
Fine, J., 391
Fine, M., 904
Finiefs, L. A., 1082
Finkelman, I., *344
Finlayson, M. H., 88
Finney, J. O., *1982
Finochietto, R., 2024
di Fiore, H., 832
Fishbein, M., *1539
Fishbein, W. I., *337
Fisher, A. G. T., 1585
Fitch, C. P., 2168
Fittipaldi, C., 1084
Fitzgerald, J. E., 1938
Fivoli, C., 914
Flagg, P. J., 1216
Flaks, J., 1407
Flaum, G., *343
Fleckseder, R., 2025
Fleischhacker, H., 321
Flesch, J., 1085
Florand, J., 89
Föderl, V., 1493
Foerster, H. A., 990
Foley, F. E. B., 991
Folsom, A. I., 621
Fontaine, R., 175
Forconi, A., 395
Ford, F. R., *785
Forfota, E., 996
Forrester, J. S., 1755
Forsbeck, F. C., 165
Foshay, L., 743
Foster, G. E., 626
Foster, P. D., 987
Fourestier, M., 913, 1587
Fowler, A. F., 309
Fowler, W. M., 165, 1853
Fox, H. (Cleveland), *1813
Fox, H. (New York), *1978
Fox, M., 1487
Fradkin, W. Z., 464
Franchini, Y., 91
Francis, T., Jr., *566
Franck, E., 1767
Franck, S., 2110
Frank, L. J., *1011
Frank, R. T., *1121, *1863; (correction) 1977
Frank, T. J. F., 88
Frankenthal, L. E., Jr., 1155
Franks, R. M., 1076
Frant, S., *475
Fraser, D. T., 2019
Fraser, F. R., 1080
Frazer, W. M., 1491
Frazier, W. D., 389, 623
Freedlander, S. O., 538
Freedman, E., 821
Freeman, J. T., 825
Freerksen, E., 1677
Freudenberg, R., 93
Freyberg, R. H., 1670
Fried, B. M., 1847
Friedenwald, J., 2102
Friedewald, W. F., 2101
Friedman, A. B., 908
Frimann-Dahl, J., 1944
Frisch, C., 177, 2109
Fröhlich, A., 93
Fröhlich, K., 544
Froment, R., 89, 1764
Frye, W. W., 77
Fürth, O., 1677
Fuller, M. K., 1316
Fullerton, H. W., 171
Fumi, C., 995
Funk, C., 2086
Furber, R. I., 2106
Furth, J., 307

G

Gaehtgens, G., 470
Gagliardi, P., 1859
Gaines, A. R., 2168
Gajdos, A., 830
Galeotti-Fiori, A., 318
Gallagher, T. F., 1670, 1670
Gallavan, M., 1075
Galloway, I. A., 993
Galloway, J., 910
Gammon, G. D., *413
Garbe, W., 987
Gardère, H., 2023, 2023
Garin, C., 1237
Garland, H. G., 2105
Garraud, R., 1083
Gaté, J., 395, 469
Gattini, H., 91
Gay, F. P., 2100
Geiger, J. C., 466, *1363
Geiling, E. M. K., *1532
Gellerstedt, N., 998
Gelman, S., 1314
Genner, V., 2110
Gerard, R. W., 1397
Gerstel, G., 1861
Geschickter, C. F., *1894
Gesse, E. P., 631
Ghormley, R. K., *2111
Gibbons, R. J., 464
Gibert, P., 89
Gilbert, J. T., 1158
Gilbert, R., 522
Gildea, E. F., 989
Gillen, J. B., 2170
Gilles, E. C., *484
Ginestous, E., 2171
Ginsberg, J. E., 2018
Ginsburg, H. M., 619
Giomo, G., 542
Giordano, A., 2024
Girard M., 2172
Gjessing, H. G. A., 1487
Gladstone, R. J., 992
Glanzmann, E., 1408, 1859
Glaser, M. A., 742
Glass, V., 1491
Glendy, M. M., 985
Glendy, R. E., *863, 985, *1775
Glenn, F., 623
Glover, B. T. J., 1491
Göpfert, K., 1943
Gold, H., *481
Goldberg, J. A., *777
Goldberger, E. W., *1088, 2095
Goldberger, M. A., *1863; (correction) 1997
Golden, R., *1497
Golden, S. E., 235
Goldie, W., 2105
Goldman, J. L., *1254
Goldstein, J. D., *2057
Golston, H., 1582
Gómez, J. B., 1765
Goodman, L., 809
Goodman, M. H., *1009
Goodman, S., *1980
Gordon, L. S., *570
Gorlero Pizarro, R., 1161
Goss, C. C., 622
Gosse, A. H., 171
Gould, S. E., *1971
Gradle, H. S., *253, 61 B
Graffar, M., 90
Graham, A. S., 539
Graham, S., 909
Grand, M. J. H., 537
Grant, R. L., 1670
Grant, W. H., 164
Grasset, E., 1857
Gravier, 1237
Gray, H. J., 1577
Gray, J. D. A., 85
Gray, L. A., *1597
Gray, M. E., 1577
Green, B., *1903
Greenberg, L. D., 1394
Greene, J. A., *1712
Greene, J. S., *187
Greenfield, J. G., 2104
Greenhouse, B., 2099
Greenspan, E. B., 535
Greenwood, D. A., 1157
Gregg, R. O., *1257
Greulich, W. W., 2169
Grigaut, A., 89
Grill, C., 94
Groag, P., 93
Grosjean, W. A., 1382
Gross, L., 307, 1847
Grossman, J., 748
Grove, O. A., 1580
Guagnini, F., 749
Guarini, C., 749
Gubner, R., 238
Guernsey, C. M., *1257, 1485
Guild, H. G., *1597
Gunn, A. L., 1941
Gunn, D. L., 1941
Gunsett, 2107
Gunther, A., 1231
Gustafson, P., *863
Guthrie, K. J., 1405
Gutman, A. B., 235
Gutschmidt, J., 471
Gutzeit, K., 543

H

Haas, L., 243
Hadjopoulos, L. G., 536
Hadler, A. J., *1629
Hadley, P. B., 389
von Haebler, T., 1082
Hafkesbring, E. M., 82, 461
Hafner, F., 389
Hagebusch, O. E., *1537
Hagedoorn, A. C., 2026
Hagedoorn, A. L., 2026
Hageman, P. O., *642
Hagemann, P. H., 243
Haldi, J., 1579
Hall, A. J., 172
Hall, A. S., 468
Hall, G. E., 310
Hall, M. C., 746
Hall, V. R., 1668
Hall, W. E. B., *125, 2021
Halliday, N., 907
Halpern, K. C., 2019
Halpern, L., 93
Hamblen, E. C., *10
Hames, F., 2097
Hamil, B. M., 1846
Hamilton, A. S., 1758
Hamilton, J. B., 1669
Hammond, G., 988
Hammond, W. T., *407
Hampton, A. O., *1265, 2096
Hanrahan, E. M., Jr., *1170
Hansen, L., 2110
Hansen, S., 322
Hanzlik, P. J., 1756
Hardgrove, M., 1487
Harkins, H. N., 619, *1501
Harley, D., 315
Harmon, P. H., 1061
Harris, F. I., *1900
Harris, J. H., 905
Harris, L. J., 1492, 1492
Harrison, R. W., 81
Hart, D., 170
Hart, E .B., 989
Hartfall, S. J., 2105
Hartman, F. W., *2116
Hartung, E. F., 606, 2099
Hartwell, S. W., *1800
Harvey, A. M., *12, 1488
Hass, G. M., 2104
Hasselbach, F., 1588
Hautefeuille, E., 541
Hawke, W. A., 825
Hayashi, N., 829
Hayden, E. P., 826
Hayhurst, E. R., *1802
Hayman, J. M., Jr., *1813
Hayman, M., 1833
Hazel, O. G., *1275
Hazen, H. H., *425
Hecht, A. F., 2026
Hector (Mme.), 89
Heifetz, C. J., 2097
Heim, J. W., *417
Heiman, M., 1084
Heindel, R. H., 1295
Heintzelman, J. H. L., 389
Heise, F. H., 1311
Heitz-Boyer, M., 912
Hejman, W., 1858
Heller, E. L., 1654
Hellmuth, G., 2167
Hellner, H., 543
Hellwig, C. A., 166
Helmholz, H. F., *1039
Hench, P. S., 1481
Henderson, P., 909
Henderson, Y., 1561
Hennig, O., 831
Henry, S. A., 1667
Henschen, C., 175
Hensel, G., 1860
Hepler, A. B., *1602
Herbert, F. K., 1941
Herbst, W. P., 1848
Herfort, K., 1764
Herman, H. J., *258
Herman, M., 1075
Herrald, F. J. C., 1845
Herrell, W. E., 2103
Herrmann, G., 167, 907
Herrmann, L. G., 1672
Herschberger, C., *1254
Hertel, E., 1766
Hertz, S., 1668
Hess, J. H., 1759
Hesseltine, H. C., *768
Hetherington, H. W., *1952
Heuer, G. J., 389
Heyd, C. G., 83
Heymann, W., 83
Hicken, N. F., 1855
Hickling, R. A., 1406
Higgins, G. K., 235
Higinbotham, N. L., 2167
Hildebrandt, A., 1321
Hill, M. R., *1184
Hill, N. G., 1492
Hilton, J. P., 80
Himmel, I., 1407
Hirata, Y., 996
Hirose, R. S., 310
Hirsch, E. F., *937
Hirtz, G., 1942
Hiyeda, K., 829
Hjerrild, N., 2110
Ho, W. Y. H., 1232
Hoagland, H., 2096
Hoctor, E. F., *1786
Hodgson, J. C., 88
den Hoed, D., 1322
Hoff, H., 244, 2109
Hoffman, S. J., *1447
Hoffmann, H., 164
Hofmann, A., 1861
Hogan, G. F., 169
Hogan, H., 2098
Holbøll, S. A., 472
Holck, H. G. O., *1517
Holcomb, R. C., 972, 1742
Hollander, L., *95
Holloway, G. D., 164
Holmblad, E. C., *1196
Holzbach, E., 1085
Hoover, P. A., *266
Horowitz, E. A., 821
Hoskins, R. G., *1246
Houser, G. F., 1312
Houser, K. M., 1577
Howard, T., 1654
Hsieh, C. K., 822
Hsu, S. C., 911
Hubbard, A. W., 1669
Hubbard, W. B., 1231
Huber, J., 89
Hubert, G., 1669
Hubert, L., 1671
Huddleson, I. F., *1971
Hudgins, A. P., 1235
Hughes, E., 316
Hughes, W. H., 1674
Hull, E., 82
Humphreys, E. M., *490
Hungerland, H., 2108
Hunt, H. F., 1762, *1966
Hunt, R. C., *1119
Huriez, C., 830
Hurlbut, J. L., 2157
Hurst, A., *430
Hurst, E. W., 624
Hurtado, A., 824
Hurwitz, N., 1561, 2006
Hurwitz, S., *2042
Hurynowiczówna, J., 94
Husband, M. W., *1797
Hutton, J. E., *1618
Hutton, J. G., 823

I

Infantozzi, J., 470
Ingalls, T. H., 1489
Iob, L. V., 2018
Iraola, J., 470
Irsigler, F. J., 542
Isaacs, R., 1937
Israel, S. L., *574
Ivy, A. C., 461

J

Jablons, B., 522
Jackson, A. S., 1079
Jackson, C., 294
Jackson, C. L., *108, 294
Jackson, E., *841
Jackson, H., 1231
Jackson, S. H., 1760
Jacob, L. E., 1674
Jacobs, A., 86
Jacobs, M., 1074
Jacobsen, A. W., *101
Jacoby, P., 1162
Jacquet, A., 395
Jaffe, H. L., *546
Jahnel, F., 177, 1766
Jameson, P. C., 1937
Jammet, M. L., 628, 2023
Janeway, C. A., *12
Januschke, H., 398
Jarman, W. D., 745
Jarvis, J. A., 1761
Jeghers, H., *756; (correction) 965
Jenkin, P. M., 1941
Jennings, G. H., 2170

109
37

Jentzer, A., 541
Jephcott, C. M., 1488
Jersild, M., 1862
Jervis, G. A., 2098
Jeter, H., 2021
Jeune, M., 89
Johansen, C., 322, 834
Johansen, G. F., 244
Johnson, C. D., *1869
Johnson, C. M., 308
Johnson, D. W., 747
Johnson, E., 1400
Johnson, F. S., 2103
Johnson, H. L., 538
Johnson, K. S., 2103
Johnson, R. P., 2168
Johnson, W. R., *1800
Johnston, C., 1761
Johnston, C. G., 536
Johnston, C. H., *1359
Johnston, F. D., 1082
Johnston, J. A., 741
Johnston, M. W., 2100
Jolliffe, N., 1075
Jolly, E., 1759
Jones, C. P., 824
Jones, F. G., 1852
Jones, G., *1027
Jones, O., 315
Jones, T. D., 1308, 1308
Jones, W. A., 825
Jordan, A. C., 2022
Jordan, E. P., *1444
Jordan, W. R., 1079
Joslin, E. P., *497
Julianelle, L. A., 81
Jungeblut, C. W., 1758
Junghanns, H., 832
Junghans, E., 92

K

Kämmerer, H., 1321
Kahn, J. R., 1755
Kahn, R., *1802
Kalz, F., 1162
Kammer, A. G., *1511
Kandel, E. V., 2168
Kanter, A. E., *1097
Kantrow, A. H., 2095
Kaplan, I. I., 1755
Karády, S., 996
Kasabach, H. H., 235
Kasman, L. P., 619
Kastein, G. W., 1862
Kaunitz, H., 1767
Kautz, F. G., 78
Kê, C. T., 911
Keefer, C. S., 164, *325, *1448
Keil, H., 540
Keith, H. M., 2169
Keith, J. D., 1585
Keith, N. M., *1
Kellar, R. J., 86
Kellner, H., 1677
Kelly, L. C., 1307
Kelser, R. A., 308
Kemkes, B., 996
Kemp, A. E., 1856
Kempf, C. A., 1157
Kempski, H., 243
Kendall, H. O., *1120
Kendell, H. W., 1576, 2020
Kennedy, A. S., 79
Kennedy, F. S., 1578
Kennedy, W. T., 1846
Kenny, M., 1082
Kent, H., 1767
Kenyon, A. T., 1670, 1670
Ker, F. L., 172
Kereszturi, C., 740
Kernan, J. D., 2018
Kerpel-Fronius, E., 750
Kesten, H. D., *1509
Kidd, J. G., 744
Kiefer, E. D., *1341
Kilian, H., 1495
Kimm, H. T., 822
King, H. C., 83
Kirch, A., 544
Kirklin, B. R., *633
Kirwan, E. O., 1584
Kissmeyer, M., 241
Kisthinios, N., 1160
Klein, J. E., 390
Kleitman, N., 164
Klimke, W., 1494
Kline, E. M., *328
Klinefelter, E. W., *1798
Kling, D. H., 904
Klir, C., 469
Knack, A. V., 1085
Knacke, 1676
Knapp, A., 1937
Knauer, H., 914
Knepper, P. A., *1591
Knepper, R., 2025
Kobak, A. J., 1155
Koch, C. A., 310
Koch, E. K., 472
Koch, F. C., 1312, 1670, 1670
Koch, S. L., 169
Kocour, E. J., 1397
Köhler, A., 177
Koenen, H. P. J., 178
Königsberg, M. S., 396
Koepf, S. W., 1576
Körbler, J., 471
Kohler, G. O., 989
Kohn, L. A., *2061
Kohn, S. E., *1005
Kolmer, J. A., 237, 522, 1156
Koopmann, H., 243
Kopp, I., 1850
Korb, M., 466, 1854
Korthof, G., 1678
Kosse, J., *204
Koster, H., 619
Koster, L., 1086
Kovtunovich, G. P., 1085
Krakauer, S. A., 537
Kral, F., 833
Kramer, P. H., 632
Krantz, J. C., Jr., 2019
Krauel, G., 1677
Kraus, G., 1240
Kraus, W. M., 236
Krauspe, C., 321
Kravetz, B., *1880
Krebs, E., 994
Kreider, H. R., *1532
Kretschmer, H. L., *1097
Krishnan, B. G., 1081
Krogh, M., 1590
Kruse, F. H., *868
Küchlin, W., 543
Kümmerling, 630
Kuhns, J. G., *1168
Kulchar, G. V., 822, *1715
Kunath, C. A., *183
Kunstadter, R. H., 1759
von Kup, J., 2025
Kurtz, A. D., 1654
Kutschera von Aichbergen, H., 396

L

Labate, J. S., 1316
Lachman, G. S., 904
Lafferty, R. H., 467, 1402
Lahey, F. H., *1414
Lake, N. C., 992
Lamm, H., 1834
Landau, A., 1858
Landfisch, S., 834
Landis, E. M., *2030
de Langen, C. D., 398
Langworthy, O. R., 237, 1761
Laporte, A., 748
Laqueur, E., 913
Larcher, W., 398
Larkin, E. H., 85
Lassen, H. C. A., 472, 2110
Lauber, H. J., 543
Laubry, C., 175
Laurinsich, A., 1860
Law, J. L., 77
Leary, T., 1382
Lebailly, C., 1942
Leberman, P. R., *1698
Lee, L. E., Jr., 824
Lehman, A. J., 1756
Lemaire, A., 89
Lemere, F., 1401
Lemere, H. B., *347
Lemierre, A., 748
Lenci, E., 995
Lennette, E. H., 1381
Lenz, E., 92
Leonard, M., 985
Leriche, R., 748
Lerman, J., 1668
LeRoy, G. V., 2168
Levin, O. L., 1939
Levine, S. A., 1074, *1775
Levisman, P., 1161
Levrat, M., 1319
Levy, C. S., *1009
Levy, L. F., 1319
Levy, W., 537
Lewin, W., 1857
Lewis, A., 910
Lewis, D., *1894
Lewis, L. G., 1761
Lewis, R. M., *1873
Lewy, R. B., 1232
Lian, C., 1587, 1587
Liberman, T. N., 1764
Lieb, C. W., 237
Liebenam, L., 1496
Lieberson, A., 535
Liebesny, P., 630
Ligas, A., 2107
Lignac, G. O. E., 998
Lillie, R. D., 1077, 1234
de Lillo, G., 90
Lilly, G., 1854
Limburg, H., 543
Lindgren, S., 998
Lindqvist, T., 1861
Lindsay, H. C. L., *1530
Lippard, V. W., 903
Liston, O., 466
Littauer, D., *649
Little, J. M., 1579
Litzenberg, J. C., *1871
Liu, K., 911
Livermore, G. R., *1528
Livieratos, S.,1160
Löhr, W., 1676
Loeper, M., 89, 912
Loeschcke, H. H., 1161
Loewe-Lyon (Mme.), 89
Löwenstein, W., 472
Loicq, R., 1493
London, I. M., 523, 1853
Long, C. F., *23
Long, P. H., *1524
Lorenz, E., 84
Lorenzo, R., 2108
Lovern, J. A., 1406
Loy, D. T., *1797
Ludlum, W. D., 1142
Lundsteen, E., 834
Lust, F. J., 1307
Lynch, K. M., *1974
Lynn, F. S., 1403
Lyons, R. H., 2095

M

McBryde, A., 467, 2100
McBurney, R., 1157
McCaffrey, I., 78
McCandliss, W. K., 150
McCann, W. S., *2056
MacCarty, W. C., 1667
McCastor, J. T. N., *1799
McCastor, M. C., *1799
McClellan, G. S., *1869
McCloskey, K. L., *250
McClure, R. D., *782
MacComb, W. S., 1402
McConnell, A. A., 1856
McConnell, W. J., *762
McDonald, C. A., 466, 1854
McDonald, H. P., *1037
McDonald, S., 910
McDonough, K. B., 167
McDougall, J. B., 911
McGeorge, M., 1080
McGibbon, J. E. G., 626
McGowan, J. M., *1591
Macgregor, A. R., 1583
McGregor, H. G., 468, 1855
McHenry, E. W., 173
McIlroy, A. L., 86
McIntosh, J., 1491
Mackay, C., 1584
MacKay, E. M., 1669
Mackay, H. M. M., 1674
McKenzie, C. H., 164
McKeown, H. J., 84
McKhann, C. F., *2034
Macklin, C. C., 1470
Maclagan, N. F., 1857
McLaughlin, A. I. G., 1857
MacLean, A. R., *549
McLean, J., 1579
MacLean, M. E., 1759
McLester, J. S., *838
MacMahon, H. E., 1847
McManamy, M. C., 1312
McMaster, P. D., 744
MacMillan, J. A., 1851
McMillan, R. L., *1194
MacNeal, W. J., *2139
Macy, I. G., 1846
Maddock, S., *2055
Maddock, W. G., *2130
Maes, U., 617
Maggio, P., 1675
Magill, T. P., *566
Mahlo, A., 915
Mahoney, J. F., *425
Maier, R. L., 1399
Maillard, G., 2023
di Maio, G., 176
Makel, H. P., 990
Malamos, B., 629
Malamud, T., 995
Maliphant, R. G., 829
Maliwa, E., 1590
Man, E. B., 989
Mandel, E., 915
Mandl, F., 243
Manizade, M. D., 2109
Mann, F. C., 1311
Mann, W. N., 172
Manning, R. J., 827
Maragliano, V., 833
Marberg, C. M., *1965
Marchoux, E., 912
Marcley, D. M., *1328
Margottini, M., 832
Mariani, G., 1238
Marie, J., 628
Markees, S., 915
Marmor, J., *430
Maroney, J. W., 741
Marshall, E. K., Jr., 1314, 2019, 2020
Marshall, S. F., *1341
Martenson, L., 1672
Martin, C. L., 2097
Martin, D. S., 824
Martin, G. J., 465, 1311
Martin, L., 2167
Martin, R., 1675
Martin, W. B., 1491
Martinetti, R., 395
Martinez, D. B., *489
Marzocca, C., 1765
Marzollo,E., 1765
Mascall, W. N., 540
Masek, J. L., 469
Masquin, P., 1237
Massia, G., 469
Massie, E., 2095
Master, A. M., *546, 2157
Mathé, C. P., 1848
Mather, J. H., 626
Mathiesen, H., 2110
Matthew, G. D., 86
de Mattia, R., 913
Mattick, W. L., *2121
Matz, P. B., 1233
Mayer, H., 915
Mayer, L. L., *1793
Mayerson, H. S., 1847
Mayfield, F. H., *928
Mayoral, A., 83
Mazzei, E. S., 994
Mazzetti, M., 1675
Mazzini, F., 629
Means, J. H., 1668
Medlar, E. M., 1073
Meier, E. J., 1766
Melchior, E., 1764
Meleney, F. L., 150
Meleney, H. E., 77
Meller, J., 93
Mellon, R. R., 389
Melnick, P. J., 618
Mencher, W. H., *1338
Mengle, H. A., 166
Menniti, I., 1494
Menville, J. G., *1008
Mercier, P., 628
Merrillees, C. R., 1492
Mertz, H. O., 1400
Mettier, S. R., 307
Metzger, F. C., 1076
Meulengracht, E., 2025
Meyer, A., 1492
Meyer, H. W., 1851
Meyer, O., 543
Meyers, R., 617
Meyler, L., 1768
de Michelis, U., 995
Mielke, H., 630
Migliori, V., 90
von Mikulicz-Radecki, F., 321
Milella, A., 1237
Miles, A. A., 1082
Milhaud, M., 1237
Miller, A. H., 809
Miller, D. K., 1314, 1487
Miller, E. P., *1903
Miller, J. F., 746
Miller, S. G., 1755
Milles, G., 1074
Millett, J., 1940, *2138
Millischer, P., 2172
Minkenhof, J. E., 1590
Minski, L., 2170
Mintz, M. E., 821
Mishulow, L., 392
Mitchell, C. L., 537
Mitchell, R. S., *1956
Mixter, W. J., 391, *1265
Mizoguchi, K., 1941
Møller-Christensen, E., 1678
Moersch, F. P., 1578
Mohr, H., 544
Moitel, P., 748
Momigliano, E., 1859
Montagnini, L., 831, 1588
Montant, R., 541
Montanus, W. P., 1672
Montgomery, H., 743
Montgomery, T. L., 163, 744
Mooney, V., *866
Moor, H. D., 1579
Moore, C., *637
Moore, C. H., *859
Moore, R. L., *25
Moore, S. W., 623
Morin, M., 748
Morris, M. C., 81
Morris, N., 909
Morrison, L. M., *108
Morse, R. T., 465
Mortensen, V., 544
Morton, D. J., *1112
Morton, R. A., 1406
Moschcowitz, E., *1362
Moss, J. M., 1852
Most, H., 1075
Mosto, D., 542
Motley, H. L., *1718
Mourier, P., 1768
Moursund, W. H., Jr., 2097
Mowry, I., 392
Mueller, B., 750
Müller, R., 1495
Müller, R. W., 320
Muff, E., 831
Mulinos, M. G., *1509
Munch-Petersen, C. J., 1410
Munck, W., 322
Mundorff, H., 1859
Munist, L., 749
Murano, G., 1320
Muret, M., 1407
de Muro, P., 1320
Murphy, G. E., 1080
Murphy, H. L., 624
Murray, W. S., 903
Musser, J H., *323
Mutch, J. R., 314
Muth, M. L., 2167
Myers, D., *919
Myers, G. B., *1983
Myerson, A., 239

N

Nagell, H., 630, 1162
Nammack, C. H., *330
Napier, L. E., 1584
Narat, J. K., *655
Nazareth, O. de S., 629
Neal, J. B., 1490
Neame, H., 624
Necheles, H., *204
Needles, W., 1759
Nègre, L., 241
Negri, C., 90
Negro, G., 1084
Neidhardt, K., 996
Neilson, C. H., *1027
Nelson, I. A., *1537
Nelson, J., 464
Nelson, V. E., 1157
Nettelroth, A., 1295
Netter, H., 2023
Neuber, E., 1240
New, G. B., 1672
Newburgh, L. H., 2100
Newhart, H., *839, *1620
Newman, B. A., *1036
Newns, G. H., 1159
Nguyen-Dinh-Hoang, 628
Nickerson, D. A., 743
Nicodemus, R. E., 1762
Nicolas, J., 395
Nicolas, N. W., 1764
Niemeier, O. W., 1851
Nissen, N. I., 1240, 1322
Nitschke, P. H., 170
Nobécourt, P., 1083
Noble, R. L., 1318
Noël, R., 317
Noethling, W., 630, 1162
Nomland, R., *564, 1757
North, J. P., *848
Notes, B., *1628
Novak, J., 398
Novick, J. N., 621
Nye, R. N., 391
Nyfeldt, A., 834
Nylin, G., *1333

O

Ober, F. R., *554
O'Brien, G. T., 2170
O'Brien, H. A., 621
O'Callaghan, W. P., 1081
Ochsner, A., 1854
O'Connell, J. E. A., 1080
Oeriu, S., 320
Oerting, H., 393
Ohligmacher, H., 1944
Okkels, H., 1590
Olch, I. Y., 903
O'Leary, P. A., *1163
Oomen, H. A. P. C., 1086
Oppenheimer, A., 239, 1667
Orgaz, J., 396
Ormerod, F. C., 1856
Ormerod, M. J., 1076
Orr, H., 992
Osgood, E. E., *933
O'Sullivan, J., 316
Overholt, R. H., *127, 1938

P

Pabst, A. M., 1234, 1235
Pachman, D. J., 538
Padgett, E. C., 618
Page, I. H., 389
Pagel, W., 1492
Paisseau, G., 2171
von Pallos, K., 397
Paltrinieri, G., 319
Panneton, P., 1587
Paoliello, A., 2017
Papez, J. W., 1668
Pappenheimer, A. M., 1671
Park, W. H., *1681; (correction) 1997
Parker, H. L., 1404
Parker, W. R., *1262
Parlato, S. J., 1579
Parran, T., *205, *425, 1576
Parsons, C. G., 1404
Parsons, E. H., *18
Parsons, R. P., 85
Passmore, R., 1492
Patey, D. H., 314

V 10
1937

Paton, J. P. J., 316
Patterson, J., 468, 1673
Patterson, R. L., Jr., 1758
Patterson, W. B., 1762
Paul, W. D., *1712
Paullin, J. E., *1123
Paulson, M., *1880
Payne, R. L., *1436
Pearson, C. C., 167
Pearson, G. E. G., 80
Pearson, R. S. B., 317
Pearson, W. J., 1159
Peden, O. D., 171
Pedersen, S., *2130
Péhu, M., 317
Peller, S., 1486
Penati, F., 913
Pendergrass, E. P., *634
Penfold, H. B., 174
Penfold, W. J., 911, 1236
Perazzo, G., 469
Perdue, J. J., 1308
Pereira, S., 175
Perkin, H. J., 621
Perlès, S., 912
Perlow, S., *27
Perschl, A., 320
Pescarmona, M., 1408
Pesme, P., 1942
Peterson, D. H., 1670, 1670
Peterson, J. B., *1532
Petrescu-Coman, V., 397
Petri, A., 1322
Peyton, W. T., 1073
Pfaffenberg, R., 630
Pfahler, G. E., 312
Phemister, D. B., *1501
Phifer, I. A., 1938
Phillips, C. C., 467, 1402
Phillips, G., 1318
Phillips, S. W., 1232
Piasecka-Zeyland, E., 1858
Pickhardt, O. C., *2048
Pickles, W. N., 1080
Pijoan, M., 909, 1845
Pilcher, C., 539
Pilcher, R., 1317
Pilcz, A., 244
Pilgerstorfer, W., 321
Pimenta, A. M., 91
Pinelli, L., 831
Pinner, M., 78
Pinösch, H., 994
Pirolli, M., 1238
Platou, E. S., *1520
Playfair, P., 625
Plum, P., 1086, 1768
Plummer, D. E., *18
Pötzl, O., 244
Pohle, F. J., *2055
Poix, G., 395
Polak, M., 542
Pollitzer, G., 1765
Pollock, G. A., *2111
Pomerantz, L., *1509
Pongratz, R., 320
Pons, J. A., 1671
Poole, M. W., 1846
Pope, A. S., 79
Popovici-Lupa, 397
Popper, H., 915
Porges, O., 320
Portnoy, M., 2108
Pottenger, F. M., Jr., 906
Pottenger, J. E., 906
Potter, E. L., *337
Potter, M. F., 747
Pratt, J. P., *1875
Priestley, J. G., 1081
Priestley, J. T., *1703
Pritchard, B., 2104
Proppe, A., 471
Prosperi, M. H., *1448
Pruvost, P., 1858
Puech, P., 994
Puglisi, V., 2172
Pullinger, E. J., 1856
von Purjesz, B., 1589
Putnam, T. J., 391
Pytel, A., 631

Q

Quaglia, F., 1408
Quénu, J., 1858
Quick, A. J., 66
Quigley, J. P., *1363
Quill, L. M., *854
Quimby, E. H., 1402
Quinby, W. C., 1939
Quinlan, J. F., 809, 2006, 2086

R

Raagaard, O., 178
Rabinowitch, I. M., 309
Radford, M., 390
Radnai, P., 751
Rafsky, H. A., *2048
Raili, E. P., *343
Ramon, G., 628
Randall, A., 463, *1698
Randall, L. M., 2103
Rane, L., 82
Rankin, F. W., *1719
Ransom, H. K., 988
Rapin, O. J., 1407
Rasch, G., 472
Raskin, N., 311
Raso, M., 2024
Ravdin, I. S., 536, 623
Ravetta, M., 1238
Ravitch, M. M., *1122
Raynaud, R., 1082
von Razgha, A., 1861
Rea, C., *266
Read, C. F., *654
Reader, D., 240
Rebattu, 1237
Rector, J. M., 311
Redell, G., 2026
Reed, R. E., 1654
Reedman, E. J., 988
Rees, C. E., *866
Reese, A. B., 462
Reh, T., 628
Reichenmiller, H., 1085
Reichle, H. S., 1075
Reid, D. E., 821
Reid, H., 1586
Reid, R., 2022
Reilly, J., 748
Reinecke, B., 176
Reiner, M., 165
Reiter, P. J., 1862
Rettanni, G., 176
Retzlaff, L., 1409
Reuter, F. A., 238
Rhoads, C. P., 1314
Rhoads, J. E., *1684
Ricard, 2172
Rice, J. L., *475
Richardson, A. P., 1756
Richardson, H. F., 310
Richet, C., 2023
Richou, R., 628
Richter, A. B., 1926
Richter, H., 823
Rickard, E. R., *566
Ridpath, R. F., *545
Ries, E., 1756
Rigoni, M., 995
Rinderknecht, H., 1318
Rinehart, J. F., 1394
Rinkel, H. J., 1489
Riseman, J. E. F., *256, 743, 1485
Ritchie, W. P., 2017
Ritvo, M., 239, *1101
Rivers, A. B., 312, 903
Rivière, M., 1160
Rivollier, P., 2023
Robbins, C., *1192
Robecchi, E., 318, 318
Roberts, C. P., *1629
Roberts, E., 167
Roberts, J., *1027
Robinson, C. S., 1577
Robinson, G. W., 990
Robinson, G. W., Jr., 1760, 1834
Robinson, H. B. G., 236
Robinson, L. J., 168
Rocchini, G., 1494, 1942
Roche, C. F., 1308
Rodway, H. E., 86
Roegholt, M. N., 398
Rogers, B. C., 1577
Rogers, J. B., *928
Rogers, J. F., *842
Romano, J., 2096
Rombouts, J. M., 1240
Roome, N. W., 619
Roos, C. J., 632
Rosahn, P. D., 1294
Rosedale, R. S., 1576
Rosenak, S., 631
Rosenberg, H. A., 740
Rosenberg, L. C., 311
Rosenberg-Schauss, W., 541
Rosenblatt, M. B., 1849
Rosenblüth, M. B., 1850
Rosenthal, S. M., 312
Rothe, G., 320
Rothermich, N. O., *1027
Rottmann, A., 752
Roubier, C., 1160, 1319
Rousset, J., 395
Rovenstine, E. A., 1313
Rowe, O. W., 1401
Rowe, S. N., 307
Roy, L., 89
Rubin, M. A., 2096
Rubinsztejn, M., 94
Rucker, P., *1087
Rudolph, L., 170
Ruffin, J. M., *2054
Rule, A. M., 237, 1156
Ruprecht, H. A., *1537
Rusk, G. Y., 307
Russell, D. S., 1673
Ryan, H. A., 1308
Ryan, W. J., 1073
Rymer, C. A., *1249
Ryss, S. M., 1410
Rytz, F., 235

S

Sachs, W., 1486
Sacks, H. A., 619
Sacon, J. L., 470
Salm, H., 833
Salmon, U. J., *1863; (correction), 1937
Salvati, A. A., 1239
Salvin, M., *1038
Sampson, J. J., 740
Samuel, N., 910
Sanders, J., 2026
Sanford, A. H., *425
Sanford, H. N., 826
Sannicandro, G., 629, 1160
Santero, N., 913
Sarrouy, C., 1082
Sattler, A., 2025
Sauer, L., *487
Sauerbruch, F., 1676
Saunders, G. M., 308
Saurino, V., 1759
Scadding, J. G., 2170
Schaffer, H. W., 825
Schall, L. A., *1506
Schedtler, O., 914
Scheie, H., *413
Scheinker, I., 916
Scherago, M., 1759
Schill, E., 1860
Schindler, R., 1940
Schlapobersky, L., 1320
Schlesinger, M., 993
Schleyer, E., 321
Schliephake, E., 834
Schlinke, H., 996
Schlösser, J., 1767
Schlutz, F. W., *1959
Schmidt, W., 751
Schmidt, W. M., 903
Schmier, A. A., *28
Schnabel, T. G., 2017
Schneider, B., *115
Schneider, G. H., 997
Schneider, M., *1447
Schnetz, H., 177
Schnitker, M. A., 1074
Schnohr, E., 322
Schoeffel, E. W., *1532, *1532
Scholl, R., 1677
Schonberg, I. L., *1035
Schretzenmayr, A., 996
Schrift, M., *250
Schroeder, H., 2109
Schube, P. G., 239, 311, 1312
Schüffner, W. A. P., 632
Schülke, H., 1767
Schulhof, M. G., 1079
Schultz, L. W., *1032
Schulz, E., 915
Schulze, M., 1075
Schumacher, I. C., 1757
Schwab, R. S., 391, *1956
Schwarz, G. A., 620
Schweitzer, M. D., 825
Schwentker, F. F., 1314
Scopp, J., 2024
Scott, A. C., 828
Scott, F. H., 1485
Scott, W. W., 745, *1430
Scotti, C., 1405
Scull, R. H., 1757
Sebastianelli, A., 1161
Seed, L., 84, 1074
Seggel, K. A., 1409
Sein, M., 2105, 2170
Selbie, F. R., 1491
Selby, C. D., *1167
Seligman, B., 908
Seligsohn, A., 1768
Selinger, E., 308
Sellers, T. F., 1486
Semansky, E. J., 1073
Semb, C., 1855
Senear, F. E., *425
Seoane, M., 176
Serafim, J., Jr., 2017
Settel, N., 1233
Seyfried, H., 321
Seymour, W. B., Jr., 463
Shafiroff, B. G. P., 1158
Shamov, W. N., 1318
Shapiro, A., 619
Shapiro, D. A., *937
Shapiro, L. B., *344
Sharlit, H., *1036
Sheehan, D., 2022
Sheldon, J. M., 2100
Sherrill, J. W., 1669
Shimidzu, K., 91
Shipley, A. M., *1017
Shivers, C. H. deT., 1580
Shpiner, L. B., *575
Shultz, S. M., *273
Shurly, B. R., *2027
Shwartzman, G., 535
Siedentopf, H., 471
Siegel, M., *1088
Siemens, H. W., 92, 1589
Sigerist, H. E., 1834
Silverman, D. N., *1024
Silverman, G., 307
Silvers, S. H., 1939
Simeoni, C., 242
Simmons, E. E., 904
Simmons, H. T., 2022
Simon, H. T., 1758
Simons, D. J., 1400
Simons, R. D. G. P., 94, 1589
Simpson, C. K., 87
Simpson, J. W., *1869
Simpson, W. M., *425, 1576, 2020
Singer, E., 226
Singer, G., 1677
Singer, R., 752
Skinner, E. H., 1940, *1963
Slauck, A., 319
Slepyan, A. H., 536
Slye, M., 1940
Smith, B. C., 1073
Smith, C., *262
Smith, C. C. W., 472
Smith, D. S., *1192
Smith, D. T., *2054, 2086
Smith, E. C., 1760
Smith, F. M., *646
Smith, F. R., 1847
Smith, G. S., 910
Smith, H. L., *2038
Smith, J., 2106
Smith, K. S., 468
Smith, L. B., 84
Smith, M. I., 1077
Smith, R. G., 1670
Smith, S. (Dartford), 626
Smith, S. (Edinburgh), 2104
Smith, S. G., *2054
Snodgrass, W. R., 1159
de Snoo, K., 397
Snow, W., *1886
Snow, W. B., *1275
Snyder, R. G., 1307
Soffer, L. J., 164
Solis-Cohen, L., *578
Solomon, C. I., 2169
Solomon, H. C., 1850
Solomon, W. M., 1755
Solovov, P. D., 632
Sommer, G., 542
Soper, H. W., 294
Sosnyakov, N. G., 1678
Soulié, P., 175
Southwell-Sander, G., 2170
Spaeth, E. B., *1889
Spangenberg, J. J., 91, 749
Spekter, L., 2100
Spies, T. D., 1406
Spiesman, I. G., 1575
Spink, W. W., 164, *325, *1448
Spitta, O., 176
Spitzy, H., 320
Spotoft, J., 1162
Sprafke, H., 1239
Sprecher, 1237
Sprunt, T. P., *1945
Spurling, R. G., *928
Stabler, E. V., 1845
Stainsby, W. J., *273
Stanley-Brown, M., 2017
Starup, U., 834
Stearns, D. B., *1101
Stearns, G., 620
Stecher, R. M., 1230, 1755
Steegmann, A. T., 1312
Štefl, J., 1239
Stein-Brocker, O., 606
Steiner, P. E., 2167
Stender, A., 1589
Stengel, F., 93
Stephens, D. J., 741
Stephenson, C. S., 1486
Stephenson, D., 626
Stepp, W., 1860
Stern, E. L., *346
Stern, E. S., 747, 1763
Stetson, D. D., *414
Stewart, C. A., *1520
Stewart, C. P., 2104
Stewart, J. S., 1578
Stocker, A. K., 392
Stöcklin, H., 1675
Stoesser, A. V., 1400
Stohlman, E. F., 1077
Stokes, J. H., 2018
Stolte, J. B., 1086
Stone, H. B., *1679
Stone, W. W., *1903
Strachan, G. I., 1584
Straith, C. L., *940
Stransky, E., 916
Straus, H. W., 464
Strauss, E. B., 1317
Strauss, H., 396
Strauss, I., 1075
Stroganov, V. V., 916
Stroud, W. D., *1808
Stubbe Teglbjærg, E., 1322
Stubbe Teglbjærg, H. P., 1322
Stueck, G. H., *343
Stumme, E. H., 392
Stump, J. P., 1396
Suckle, J. E., *203
Süsskind, B., 631
Sugg, E. S., *414
Sugiura, K., 1579
Sulkowitch, H. W., 620
Sulzberger, M. B., 987, 1295
Summerfeldt, P., 1760
Sunkes, E. J., 1486
Sure, B., 825
Sutherland, C. G., *2111
Suzuki, K., 996
Swalm, W. A., *108
Swanton, C., 394
Sweany, H. C., 390
Sweeney, H. M., 1847
Swift, E. V., *2038
Sylla, A., 320
Szczeklik, E., 752

T

Takeda, K., 1941
Talbott, J. H., 392
Talia, F., 1408
Tamis, A. B., *195
Tarachow, S., 1075
Tarbell, H. A., 1316
Tarnogradskiy, V. A., 544
Taylor, F. H. L., 535
Taylor, F. W., *267
Taylor, I., 626
Taylor, S., 174
Teel, H. M., 821
Teleman, I., 748
TeLinde, R. W., 828
Templeton, F., 1940
Tenenbaum, A. S., 1410
Tenopyr, J., 1158
Terazawa, N., 1941
Terrell, A. W., *1684
Teunissen, P. H., 998
Thiele, G. H., *1271
Thieme, E. T., 163
Thomas, C. B., *1170
Thomas, W. L., *1875
Thompson, B. C., 2105
Thompson, H. E., 1482
Thompson, J. E., *938
Thompson, W. P., 235
Thomson, A. P., 910
Tiber, A. M., *330
Timerman, H. J., *1616
Timmerman, W. A., 1590
Tisdall, F. F., 1760
Titelbaum, S., 164
Tobler, W., 2172
Tocantins, L. M., 905
Tolhurst, J. C., 911
Tomoda, M., 1766
Toomey, J. A., 77, *402
Torrey, M. A., 2103
Tosi, S., 395
Tourniaire, A., 541
Townsend, S. R., 2095
Traeger, C. H., 1307
Transbøl, K., 1322
Trapp, C. E., 1312
Traub, E., 750
Traut, E. F., 988
Travers, J. T., 539
Traversaro, J. C., 542
Travis, R. C., 236
Trimble, H. G., 986
Trumble, H. C., 314
Tschopp, W., 751
Tucker, C. C., 166
Tuft, L., 606
Tulloch, W. J., 2106
Turner, K. B., *25
Turner, T. B., 462
Tyson, R. M., *753

U

Uiberrak, K., 1162
Ulrich, H., 2101
Unger, F., 1676
Unkauf, B. M., 1076
Upham, J. H. J., 1761
Upham, R., *422
Urbach, E., 833, 1767
Urnes, M. P., *1616
Usilton, L. J., *1425

V

Vaccarezza, R. F., 1765
Vachon, A., 1764
Valensin, M., 396
del Valle, D., 2024
Van Bogaert, L., 175
van Creveld, S., 1846
van der Merwe, T., 1857
van der Meulen, F., 1240
Vander Veer, J. B., *1808
Van der Wielen, Y., 398
Van Dishoeck, H. A. E., 2110
Van Meeteren, A., 998
Van Nieuwenhuizen, C. L. C., 1862

109
937

Van Winkle, W., Jr., 1756
Vanzant, F. R., 903
Varela Fuentes, B., 470
Vaughan, H. F., *771, 1398
Vaughan, W. W., 1157
Veal, J. R., 1845
Vermooten, V., *857
Versaci, A., 2109
Verzhbet, C. G., 1240
Verzár, F., 1407
Viets, H. R., *399, *1956
Villaret, M., 2107
Viole, F., 742
Violle, H., 1587
Vishnevskiy, A. V., 1196
Vollmer, H., 2095
Volterra, M., 1588
Vonder Heide, E. C., *1983
Vonderlehr, R. A., *425, *1425
Vonk, J. M. M., 178
von Storch, T. J. C., 1233
Vorwerk, W., 1161
Voss, H., 243
Volte, 1675

W

de Waard, R. H., 1862
Wahl, F. A., 177
Wainwright, C. W., 1396
Walch-Sorgdrager, B., 432
Walcott, A. M., 2017
Wald, H., 1485
Walker, T. F., *131
Wallace, J. E., 625
Wallace, R. P., 1487
Walter, O. M., 1316
Walters, W., *1591
Walther, H. W. E., *999
Walzl, E. M., 1314
Wangensteen, O. H., 1078, 2017
Wanscher, O., 1322
Wardrip, B. H., 986
Warren, H. A., 1489
Warren, S., *575
Warren, S. L., *1430
Wartenberg, R., 1294
Washington, J. A., *1122
Watkins, C. H., 743
Watson, M., 993, 993
Waugh, J. R., 1497, 2100
Weaver, R. H., 1759
Weber, H., 1944
Weidman, W. H., 1849
Weil, A. J., 1232
Weil, P. E., 912
Weinberg, T., 822
Weinstein, S. S., 827
Weisberger, D., 313
Weiser, J., 2109
Weiskotten, H. G., *2136
Weisman, S. A., *1445
Weiss, A., 535
Weiss, D., 617
Weiss, O., 1944
Weiss, S., *786, 986
Weissmann, A., 472
Weisz, R., 751
Weller, G. L., Jr., 1315
Wells, A. H., *1176
Wells, C. W., 1208
Wells, H. G., *250
Welty, J. W., 741
Wendel, W. B., 1216
Wendt, H., 1321, 1860
Wenzl, O., 832
Werner, A. A., *1027, *1786
Werner, E., 470
Werner, M., 1156
Wertheim, H., 1496
Westerfeld, W. W., 1312
Wharton, L. R., *1597, 2098
Wheeler, W. E., 2020
Whipple, E. G., *2061
White, A. S., *1900
White, J. W., 392
White, P. D., 235, *863, 1308, *1775
Whitehill, M. R., 1488
Whitehorn, J. C., 823
Whiting, L., 1153
Whitney, H. A. K., *328
Whitney, J. S., 78
Whittaker, L. D., 84
Widenbauer, F., 397
Wiebel, H., 92
Wiener, A. S., 294
Wikler, A., *430
Wilbur, D. L., *549
Wilbur, E. L., *1194
Wilcox, H. L., 1490
Wildbolz, H., 168
Wilensky, N. D., *2125
Wiles, H. O., *1965
Wilkins, R. W., *786, 986
Wilkinson, J. F., 993
Wilkinson, M. C., 2022
Wilkinson, S. A., *1012
Williams, G. E., *564
Williams, O. O., 1757
Williams, P. C., 1318
Willius, F. A., 81
Wilson, G. H., 910
Wilson, J. A., 389
Wilson, M. G., 825
Wilson, P. D., 1228
Wilson, R. A., 2103
Windholz, F., 1495
Windle, W. F., 1938
Wingfield, A., 171
Winter, M. D., *258
Winterton, W. R., 626
Wintrobe, M. M., *1170
Wintz, H., 997
Wirth, D., 997
Wise, F., 1486
Wissler, H., 2023
Witts, L. J., 747
Wolbarst, A. L., *1623
Wolf, A., 1399
Wolfer, J. A., 393
Wolferth, C. C., *1769
Wolff, E., *2042
Wolpaw, S. E., 538
Wolpe, G., 1409
Woodard, H. Q., 2167
Woods, A. C., 1403
Wooley, J. G., *410
Work, E. G., *490
Worsaae, E., 1496
Wortis, J., 1470
Wright, A., 389
Wright, I. S., *449
Wright, R. E., 1236
Wright, W. H., *570
Wugmeister, L., 628
Wunder, E., 1861
Wyatt, B. L., 1482
Wyckerheld Bisdom, C. J., 178
Wydrin, A., 998
Wyllie, A. M., 829
Wyman, L., 82
Wynants, J. H., 1493
Wynn, W., 1579

Y

Yaglou, C. P., *945
Yampolsky, J., 1488
Yang, C. S., 911
Yao, K. F., 824
Yater, W. M., 235
Yates, A. L., *250
Yodh, B. B., 172
Young, B. R., 1235
Young, C. J., 1159
Young, J., 314
Young, J. R., 991
Young, M., 1404
Young, M. W., 1295

Z

Zahorsky, J., 226
Zajíček, O., 94
Zak, E., 93
Zalkan, D. M., 544
Zancan, B., 318
Zanfrognini, G., 995
Zavod, W. A., *1693
Zbitnoff, N., 1316
Zeyland, J., 1858
Zinman, S., 470
Zischinsky, R., 1590
Ziskin, T., 310, 906
Ziskind, E., *20
Ziskind, E. S., *20
Zlotnik, A., 1407
Zocchi, S., 318
Zollinger, R., 1157
Zoss, A. R., 310
Zuccoli, A., 1320
Zuckerman, S., 1857
Zunino, E., 91

V 1
193

INDEX TO PAGES

OF THE JOURNAL, ACCORDING TO WEEKLY ISSUES—VOLUME 109, JULY-DECEMBER, 1937

Pages	No.	Date
1— 94	1	July 3
95— 178	2	July 10
179— 244	3	July 17
245— 322	4	July 24
323— 398	5	July 31
399— 472	6	Aug. 7
473— 544	7	Aug. 14
545— 632	8	Aug. 21
633— 752	9	Aug. 28
753— 834	10	Sept. 4
835— 916	11	Sept. 11
917— 998	12	Sept. 18
999—1086	13	Sept. 25
1087—1162	14	Oct. 2
1163—1240	15	Oct. 9
1241—1322	16	Oct. 16
1323—1410	17	Oct. 23
1411—1496	18	Oct. 30
1497—1590	19	Nov. 6
1591—1678	20	Nov. 13
1679—1768	21	Nov. 20
1769—1862	22	Nov. 27
1863—1944	23	Dec. 4
1945—2026	24	Dec. 11
2027—2110	25	Dec. 18
2111—2230	26	Dec. 25

INDEX TO THE ORGANIZATION SECTION

of the Journal of the American Medical Association

Devoted to the Organizational, Business, Economic and Social Aspects of Medical Practice

JULY 3, 1937, to DECEMBER 11, 1937

ALTMEYER, ARTHUR J., on sickness insurance, 29B
AMERICAN Dental Association, address on sickness insurance, 29B
Farm Bureau Federation study on medical service in rural districts, 53B
Federation of Truth, 94B
Public Health Association committee to study public health aspects of medical care, 92B
AMERICAN MEDICAL ASSOCIATION. AMERICAN MEDICAL DIRECTORY, increase in price, 7B
Annual Conference of State Secretaries, 83B
Atlantic City Session, press comments on, 3B
Board of Trustees, abstract of minutes of meetings, 7B; 58B
Bureau of Legal Medicine and Legislation, (United States assumes control of cannabis or Marihuana), 31B; 63B; (Group Health Association, Incorporated), 39B; (statement on federal legislation relating to foods, drugs, etc.), 73B
Committee on visual standards for licensure to operate motor vehicles, [Black & others] 61B
Council on Industrial Health, 58B
elections; appointments, 58B
frame legislation on hospitalization of veterans, 58B
Judicial Council action on physicians names in insurance medical directory, 23B
medical exhibits available for loan, 32B
opposed H. R. 6906 which proposes to establish new registry for marihuana, 7B
radio programs; "To America's Schools—Your Health," 58B; 55B; 64B; 85B
representative to National Conference on Educational Broadcasting, 58B
representatives to British Medical Association and Canadian Medical Association meetings, 7B
resolution on death of Dr. George H. Simmons, 59B
San Francisco Session, 7B; 50B; 83B; 89B
STANDARD CLASSIFIED NOMENCLATURE OF DISEASE to be published by, 58B
Ten Principles adopted by, in meeting problems of medical service, 57B
ASSOCIATED Medical Services, Inc., 52B
AUTOMOBILE drivers, visual standards for licensure, A. M. A. Special Committee report, [Black & others] 61B
BLACK, N. M., Visual Standards for Licensure to Operate Motor Vehicles, 61B
BRACKENBURY, HENRY B., comments on health insurance in Great Britain, 71B
BRITISH MEDICAL ASSOCIATION, 49B; 87B; 94B
A. M. A. representative at meeting, 7B
CANADIAN Medical Association A. M. A. representatives to meeting, 7B
CANNABIS (marihuana), United States assumes control, 7B; 31B; 63B
CHILDREN'S BUREAU report on relief expenditures, 16B
COFFMAN, H. J., cashing in on syphilis program, 93B
CONFERENCE on Health Education for the Public, "science writers" invited, 59B
CONGRESS, Medical Bills in; See Legislation
CONTRACT between hospital service plan and subscriber, 11B
Practice; See Medicine, contract practice
COPELAND Bill (S 5), 73B
CORPORATE practice of medicine, test case on, 14B
COSMETICS, federal legislation relating to, 73B
CROWLEY, WILLIAM S., capitalization on syphilis education campaign, 47B
CZECHOSLOVAKIA, medicine surveys sickness insurance in, 65B
DIAGNOSIS, report on federal legislation relating to devices for, 73B
DIRECTORY, AMERICAN MEDICAL DIRECTORY increase in price, 7B
insurance medical, why pay a fee for a listing, 23B
DISABILITY insurance fraud, heart disease racket, [Hedley] 1B
DROUGHT states, problem, 72B
DRUGS; See also Prescriptions
federal legislation relating to, 73B
EAGLES, Fraternal Order of, Illinois Medical Society condemns, 84B
EMERGENCY RELIEF Administration, Milwaukee County's Medical Relief program, 22B
expenditures, Children's Bureau report, 16B
old age pensions do not reduce need for, 60B
ETHICS, MEDICAL, why pay a fee for listing of physicians' names in insurance medical directory, 23B
EXHIBITS, medical, available for loan, by A. M. A., 32B
scientific, at medical meeting, [Jones] 47B
EYES, National Eye Service, England, 98B
FEDERAL Emergency Relief; See Emergency Relief
Home Loan Bank Board, sponsoring Group Health Association, Incorporated, 39B
Trade Commission, 73B
FEE schedule (1871) of Omaha Medical Society, 100B
schedule (1836-1837) of Lebanon Medical Society, 92B
FOOD, report on federal legislation relating to, 73B
FOUNDATIONS, Social Hygiene Foundation of America, 93B
Venereal Disease Prevention Foundation, 48B
FRATERNAL Order of Eagles, Illinois Medical Society condemns, 84B
GEDDES, AUCKLAND, quoted: "Patients not diseases, are treated." 60B
GOODRICH, CHARLES H., quoted on relations of various individuals and organizations to public health, 92B
GRADLE, H. S., Visual Standards for Licensure to Operate Motor Vehicles, 61B
GREEN, ARTHUR JAY, American Federation of Truth, 94B
GROUP Health Association, Incorporated, 39B
HEALTH, American Public Health Association committee to study public health aspects of medical care, to cooperate with the U. S. Public Health Service, 92B
Conference on Health Education for the Public, "science writers" to be invited, 59B
Group Health Association, Incorporated, 39B
Insurance; See Insurance
public, relations of various individuals and organizations to, Dr. C. H. Goodrich quoted, 92B
services of Scotland, review, 49B
HEART disease racket, disability insurance fraud, [Hedley] 1B
HEDLEY, O. F., Heart Disease Racket, 1B
HOSPITALS, group hospitalization plans, status of, 5B; 11B; 17B; ("week-end") 25B; 36B; (county medical societies and) 65B
United Hospital Fund, survey on free medical service by physicians, 8B
wages, increased, Seattle, 92B
ILLINOIS Medical Society condemns state medicine and lodge contract practice, 84B
INCOME, inverse relation to disease incidence, 71B
national—1929 to 1936, U. S., 91B
physicians', South Dakota, 29B
INDUSTRIAL Accident Commission, attitude on contract practice in Oregon, 95B
disease, inverse relation to income, 71B
health, A. M. A. Council on, 58B
practicing physicians and, 29B
INSURANCE, disability, alleged extensive fraud, [Hedley] 1B
health, address by A. J. Altmeyer before American Dental Association, 29B
health, companies, and group hospitalization, 36B
health, England ("second-best" medical service), 16B; (comments by H. B. Brackenbury) 71B; (excessive prescribing) 72B; (physicians under panel system), 91B; (capitation fee), 97B
health, Germany, (paper work in), 8B; (trying to popularize), 22B; (sample from), 22B
health, in British Columbia, 29B
health, in Czechoslovakia, 65B
health morbidity under Scottish panel system, 60B
health, New Jersey's attitude toward New York resolution, 57B
health, New Zealand, 46B
health, press comments on A. M. A. Atlantic City session, 3B
health (proposed plan), Ontario Medical Association $5,000 loan for, 52B
health, under federal auspices, 39B
medical directory, why pay a fee for a listing of physicians names, 23B
social, France, (new administrative regulations), 15B; (physicians fail to fill out blanks) 29B
INTERNATIONAL Congress of Social Insurance, trying to make sickness insurance popular, 22B
JONES, W. R., Demonstrating Early Diagnosis of Syphilis, 47B
JOURNALS, Flat Lux, 48B
LEGISLATION, federal, relating to foods, drugs, diagnostic and therapeutic devices and cosmetics, 73B
measures approved by A.M.A., 7B; 58B
medical bills in U. S. Congress and various states, 8B; 13B; 21B; 99B
Wisconsin medical bills defeated, 16B
LODGE contract practice, Illinois Medical Society condemns, 84B
MARIHUANA; See Cannabis
MEDICAL DIRECTORIES; See Directory
MEDICAL EXHIBITS; See Exhibits
MEDICAL JURISPRUDENCE, ownership of prescriptions, 19B
MEDICAL SERVICE; See also Hospitals; Insurance
Associated Medical Services, Inc., 52B
distribution, Indiana, 16B
for indigent, Milwaukee County's Medical Relief Program, 22B
for middle class, England, 49B; 50B
free, by physicians, United Hospital Fund survey, 8B
in South Dakota, 28B
Missouri State Medical Association locates communities needing physicians, 30B; 92B
Pennsylvania Public Assistance Law, 52B
Resettlement medical program and Ohio State Medical Association, 30B
rural, American Farm Bureau Federation study on, 53B
"second-best," England, 16B
Ten Principles adopted by A. M. A., 57B
MEDICINE; See also Medical Service; Physicians
contract practice Illinois Medical Society condemns, 84B
contract practice in Oregon, 94B
corporation practice, test case on, 14B
is there a "medical lag?" 23B
panel conference, 96B
practice, relation to group hospitalization, 27B
profession, What makes a profession? 84B
socialized, press comments on A. M. A. Atlantic City session, 3B

MEDICINE—Continued
state, Group Health Association, Incorporated, 39B
state, Illinois Medical Society condemns, 84B
state, New Jersey's attitude toward New York resolution, 57B
state, pathology threatened by, 100B
state, press comments on A. M. A. Atlantic City Session, 3B
MILWAUKEE County's Medical Relief Program, 22B
MISSOURI State Medical Association to assist physicians in finding locations, 92B; 30B
MOTION PICTURES, Crowley's nonprofit organization; Time Enterprises, 47B
NATIONAL Anti-Syphilitic League, Cincinnati, 49B
Conference on Educational Broadcasting, second, 58B
Eye Service, 98B
NEGROES mortality, 72B
NEW JERSEY Medical Society attitude toward New York resolution, 57B
NEW YORK Civic Policy Committee, 38B
resolution, New Jersey's Medical Society attitude on, 57B
NEW ZEALAND health insurance, 46B
NEWSPAPERS, comments on A. M. A. Atlantic City Session, 3B
NURSES, student, and Social Security taxes, 21B
OHIO State Medical Association and resettlement medical program, 30B
OLD AGE pensions do not reduce need for relief, 60B
OMAHA Medical Society, old-time fee schedule, 100B
ONTARIO Medical Association $5,000 loan for proposed voluntary health insurance plan, 52B
OREGON State Medical Society, Committee on Contract Practice report, 94B
OWNERSHIP of prescriptions, 19B
PATHOLOGY threatened by state medicine, 100B
PATIENTS, not diseases, are treated, Sir Auckland Geddes quoted, 60B
PAYROLL taxes on employers, 9B
PENNSYLVANIA Public Assistance Law, 52B
PENSIONS, old age, do not reduce need for relief, 60B
PHYSICIANS' contacts, 30B
delinquent under Social Security Act, 9B
incomes, in South Dakota, 28B
PHYSICIANS—Continued
industrial and practicing, 29B
innocently involved in heart disease racket, [Medley] 2B
listing in an insurance medical directory, 23B
medicine surveys sickness insurance in Czechoslovakia, 65B
Missouri State Medical Association assist in finding locations, 30B; 92B
practicing, relation to public health, Dr. C. H. Goodrich quoted on, 92B
refuse to fill out social insurance blanks, Paris, 28B
supply, American Farm Bureau Federation study, 53B
supply, Indiana, 16B
under panel system, Great Britain, 91B
PRESCRIPTIONS, excessive prescribing under English insurance, 72B
ownership of, 19B
refilling, 29B
PRESS comments on A. M. A. Atlantic City Session, 3B
PUBLICITY and British Medical Association, 98B
RADIO, National Conference on Educational Broadcasting (second), 58B
programs by A. M. A., 50B; 55B; 64B; 85B
RESETTLEMENT administration medical program and Ohio State Medical Association, 30B
RURAL Medical Service: See Medical Service
ST. LOUIS Medical Society, test case on corporate practice of medicine, 14B
SAN FRANCISCO Session: See American Medical Association
SCHOOLS, America's, broadcasting health material for, 50B; 55B; 64B; 85B
SCOTLAND, review existing health services, 49B
SEX SCIENCE; Time Enterprises managers of of film, 48B
SIMMONS, GEORGE H., A. M. A. resolution on death of, 59B
SNELL, A. C., Visual Standards for Licensure to Operate Motor Vehicles, 61B
SOCIAL HYGIENE Foundation of America, 93B
SOCIAL INSURANCE: See Insurance
SOCIAL SECURITY, Act, (physicians delinquent under), 9B; (address by A. J. Altmeyer), 29B
plan, progress of, 100B
taxes and student nurses, 21B
SOCIETIES, MEDICAL, Annual Conference of State Secretaries, 83B
county, and group hospitalization, 65B
scientific exhibit at meeting, demonstrating early syphilis diagnosis, [Jones] 47B
STANDARD CLASSIFIED NOMENCLATURE OF DISEASE to be published by A. M. A., 58B
STATE Medicine: See Medicine, state
SUTURES; bills S. 1629 and H. R. 6359 approved, 58B
SYPHILIS clinics, National Anti-Syphilitic League, Cincinnati, 49B
diagnosis (early), demonstration, [Jones] 47B
education campaign, capitalization on, 47B; 93B
TAX, cannabis regulations approved, 63B
Social Security Act, (physicians delinquent under), 9B; (student nurses and), 21B
TERMINOLOGY, STANDARD CLASSIFIED NOMENCLATURE OF DISEASE to be published by A. M. A., 58B
THERAPEUTICS, devices, federal legislation relating to, 73B
TIME ENTERPRISES, managers of film "Sex Science," 48B
TUGWELL Bill, 73B
UNEMPLOYMENT insurance, Czechoslovakia, 70B
UNITED STATES: See also Federal
government, Group Health Association, Incorporated, 39B
VENEREAL DISEASE Prevention Foundation, 48B
VETERANS, hospitalization, frame legislation on, 58B
VISION, standards of licensure to operate motor vehicles, A. M. A. Special Committee report, [Black & others] 61B
VITAL STATISTICS morbidity, relation to income, 71B
morbidity under the Scottish panel system, 60B
mortality, Negro, 72B
problem of drought states, 72B
WASHINGTON State Medical Association, demonstrating early diagnosis of syphilis as scientific exhibit, [Jones] 47B
WHEELER-LEA BILL, 80B
WINSLOW, FLOYD S., quoted, on physicians contacts, 30B
WISCONSIN medical bills defeated, 16B
WOMAN'S AUXILIARY, 14B; (list of officers) 51B; 84B; 90B; 99B
WORKS PROGRESS ADMINISTRATION, incomes of physicians in South Dakota, 28B

Index to Pages of the Organization Section

OF THE JOURNAL, ACCORDING TO WEEKLY ISSUES—VOLUME 109, JULY-DECEMBER, 1937

Pages	No.	Date	
1B— 8B	1	July	3
9B— 16B	4	July	24
17B— 22B	6	Aug.	7
23B— 30B	10	Sept.	4
31B— 38B	11	Sept.	11
39B— 52B	14	Oct.	2
53B— 60B	15	Oct.	9
61B— 64B	16	Oct.	16
65B— 72B	18	Oct.	30
73B— 84B	19	Nov.	6
85B— 92B	22	Nov.	27
93B—100B	24	Dec.	11

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1937

ORGANIZATION SECTION

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SATURDAY, JULY 3, 1937

CONTENTS

	PAGE		PAGE
A HEART DISEASE RACKET	1B	OFFICIAL NOTES	7B
THE PRESS AND THE PROFESSION	3B	MEDICAL LEGISLATION	8B
GROUP HOSPITALIZATION	5B	MEDICAL ECONOMIC ABSTRACTS	8B

A Heart Disease Racket

(Preliminary Report on an Alleged Extensive Disability Insurance Fraud)

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Passed Assistant Surgeon, U. S. Public Health Service

PHILADELPHIA

During the past few weeks the office of the United States Attorney in New York City uncovered one of the largest disability insurance frauds in years. Following an intensive investigation lasting several months, approximately thirty arrests have been made and a number of other persons summoned for questioning. Included among those involved are claimants, attorneys, lawyers' "runners" or "chasers," physicians, and representatives of several large life insurance companies.

Although none of these persons have gone to trial, a number of important confessions have been obtained. Some reputable physicians unwittingly allowed themselves to become the tools of the ring. The methods allegedly employed in New York City are of interest to the medical profession, as it is not known to what extent they are practiced in other cities.

METHOD OF OPERATING

This racket is alleged to operate by inducing policyholders of life insurance with total and permanent disability features to make fraudulent claims for disability payments. The policyholders were consulted by the runners or agents of lawyers, who persuaded them to take advantage of the disability clauses in their insurance policies. The runners introduced them to the attorneys, who agreed to take charge of their cases on a percentage basis and inquired concerning their disabilities, if any. In most instances the claimants did not have sufficient actual disabilities to warrant making claims at that time. An inquiry would be made concerning the claimant's physician to determine whether he was "regular." If he were not known to the attorneys, the case was placed in the hands of one of the ring's physicians for a "build-up."

These "build-ups" consisted in developing a history and as much clinical evidence as possible of some chronic disabling condition subsequently used in presenting a claim to the insurance company. Heart disease was frequently chosen, as it is easily simulated and difficult to disprove, and juries are likely to give the claimant the benefit of any reasonable doubt. There is confessed evidence that claimants were carefully instructed by the physicians and attorneys on the symptoms of heart disease, especially angina pectoris. Some of these patients were sent to reputable general practitioners, who were deluded by the history into rendering reports which could be used in pursuing these fraudulent claims. Sometimes unethical physicians were apparently visited for the purpose of obtaining spurious records of back-dated visits to collect back insurance or to show that the disability began some time previously.

The claimant was sometimes directed to feign heart attacks in public places where witnesses were available. Sometimes he was rushed to a hospital following an attack. On other occasions the claimant was sent to a hospital for the bona fide treatment of a noncardiac condition, even for surgical operations. During these admissions a history of heart dis-

From the Office of Heart Disease Investigations, National Institute of Health.

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The material for this article was obtained while the author was serving in the capacity of medical adviser to the Office of the United States Attorney.

ease was noted on the hospital records. Later this was used as corroborative evidence. Cardiac consultations were sometimes held. The patient was even directed to feign heart attacks in the hospital to add further evidence of heart disease.

As a final measure to convince the life insurance company of the seriousness of the claimant's condition or to insure success in event of litigation, an effort would be made to trick a reputable cardiologist into giving a consultation report that would favor the claim. The claimant would be carefully coached in the symptoms of the disease under consideration. Frequently some digitalis product was administered either for the purpose of producing cardiac arrhythmia or digitalis effects on the electrocardiogram. Occasionally the claimant was told to drink several cups of coffee before submitting to examination. Sometimes the claimant was directed to run to the office of the consultant to be short of breath on arrival. In some instances the claimants were directed to prick their fingers after voiding to show blood cells in the urine. There is reason to believe that the cardiologist's opinion was kept only if favorable to the "build-up," or at least noncommittal; otherwise it was consigned to the waste-paper basket.

Meanwhile the claimants were instructed to avoid business and remain quietly at home. When sufficient "evidence" had been accumulated, claims were submitted to the insurance companies for payment of total and permanent disability. Invariably the insurance companies would have these persons examined and despite the various subterfuges resorted to by the claimants could find little objective evidence of disease. Not infrequently, in patients well advanced in years, they would give the claimant benefit of the doubt. Otherwise the case would be carried to court and the verdict often rendered against the life insurance company.

Most of the claims were handled by the attorneys on a contingency basis. The choice move on their part was to demand a cash settlement from the life insurance company, the claimant in some instances even surrendering his life insurance policy for a relatively small amount as well as relinquishing the disability feature. From this the attorneys would obtain their fees together with the expense of handling the case, and the claimant would get whatever was left.

To make matters worse, a policyholder with a real disability sometimes found himself in the clutches of one of these groups. From the standpoint of the racket this was all the better, as it enabled them to present their case without a preliminary "build-up." It was most disastrous to the insured person suffering from a disabling condition.

It should not be supposed that all the claimants were entirely guileless victims. Some were admittedly successful business men who attempted this form of retirement on their own volition and with full knowledge of the fraudulent intent. Their desire to retire was partly due to the depression. Often these people suffered from a chronic disease not entirely disabling. Here the alleged fraud consisted of an exaggeration of this disability or feigning an additional one. Sometimes the claimants even attended their business while drawing disability allowances. One claimant had been convicted previously of insurance fraud. He went so far as to attempt to pyramid his earnings by trying to take out life insurance from one company while collecting payment for total disability from another.

PHYSICIANS INNOCENTLY INVOLVED

One of the most serious aspects from the medical point of view is that a number of reputable physicians became innocently involved. These were for the most part either general practitioners or cardiologists. The average physician acting in good faith comes to rely on the statements of his patients to a large extent. The physical examination is not likely to prove of much value in many cases of angina pectoris, especially on patients seen in consultation. The electrocardiogram, while of considerable value in detecting certain organic changes in the coronary arteries, offers no signs pathognomonic of the anginal syndrome. Unless the electrocardiogram is obtained during an attack of angina pectoris, an event that occurs infrequently, it may be entirely within normal limits or show only minor changes. Even a competent cardiologist is likely to be deceived by a person past 50 years of age well coached in the thespian arts and showing minor electrocardiographic abnormalities associated with the aging process, to which perhaps is added a digitalis effect. The digitalis effect, if recognized as such, tends to lend further evidence to the claimant's story of prolonged cardiac disease and also accounts for lack of signs of congestive heart failure. The thought that patients have been doped like race horses is not likely to enter the physician's mind.

SUGGESTIONS TO PHYSICIANS

1. Physicians, especially those limiting their practice to internal medicine or cardiology, are urged to be on guard against "synthetic" heart disease. While almost any physician might be deceived, it is more likely to occur when he is not aware of these practices or on the alert against them. It is not known to what extent they occur in other cities or whether other specialties are involved.

2. Consultants should be particularly careful about expressing opinions on cases referred to them from unknown sources, especially when there is complaint of angina pectoris and no

very sound objective evidence on which to base a diagnosis of cardiovascular disease.

3. The practice employed by some consultants of limiting prognoses in ambulatory patients to the relatively near future has much to commend it. This makes it much more difficult to use the report subsequently as a basis for a claim for total and permanent disability.

4. In most instances the consultants were unaware that their examinations would be used to collect disability insurance. If in doubt, the consultant should obtain a written statement from the referring physician and patient concerning their intention of using the report for litigation or to contest insurance claims. If after being assured to the contrary the report is subsequently used for these purposes, the consultant can show evidence of bad faith on the part of the claimant.

5. The possibility of surreptitious digitalization should be borne in mind, especially in interpreting electrocardiograms showing tracings compatible with digitalis effects.

133 South Thirty-Sixth Street.

The Press and the Profession

Within a week after the end of the 1937 session of the American Medical Association in Atlantic City, editorial writers in the press of the nation have volunteered comments on the attitude of the Association toward medical care in a profusion seldom if ever seen after such a session. These editorial comments indicate to a considerable degree the confusion in the minds of the editorial writers as to what actually happened and as to what is likely to happen in the future. In a well considered statement published on June 8, the Indianapolis *Star* said:

> Socialized medicine, like every other activity operating on similar principles, might be expected to sink to the level of mediocrity and inefficiency. Private initiative and the rewards which research and prestige confer would be lost in blight of standardization. Establishment of an exclusive health department would complete the demoralization by subjecting the profession to political autocracy.
>
> Compulsory health insurance is another scheme which would lower the quality of medical service, while state aid for indigent patients would be an invitation to widespread "chiseling" by individuals stretching minor or imaginary ills into prolonged vacations.
>
> The medical profession should be given an adequate opportunity to evolve some additional form of cooperative service along lines extending the present charity cases, as well as tending to reduce the cost of hospital care for families in poor or moderate circumstances. An encouraging factor to prevent further encroachment of socialism and paternalism may be improving business conditions. The increase in employment should reduce greatly the number who might have reason to clamor for revolutionary changes in the medical profession.

The New York *Times*, June 9, editorially expressed its approval of the resolutions offered by the Medical Society of the State of New York. The views of the New York *Times* are obviously inspired. Their similarity to statements that have come from time to time from the Committee on the Costs of Medical Care, the Rosenwald Foundation and the American Foundation Studies in Government is so apparent that any who run may read. Thus on June 9 the New York *Times* said:

> To these proposals there can be no serious objection. They sedulously avoid anything that smacks of dictation and therefore imply something different from the type of union domination advocated by the association in the past. Also they indicate that the rank and file of the association are in heartier sympathy with some form of State medicine than are the entrenched officers. Including as it does the most eminent American authorities on medicine in the country, the association has much to give. It would be folly to ignore it in creating a public health and medical policy. On the other hand, it will probably have to modify its views on compulsory health insurance which it opposes not because of defects that can be corrected but because of the fear that insurance marks the beginning of State medicine. The truth is that we already have State medicine of a kind and that it is the duty of the association not so much to protect the private practitioner as to adapt itself to new social exigencies.

The Schenectady (N. Y.) *Union-Star* was, however, so confused that its editorial actually indicates that the Association had adopted a policy favoring socialized medicine. Thus, the *Union-Star* said:

> In declaring for socialized medicine, the physicians reverse their former attitude and recognize socialized medicine as inevitable. Having recognized that, they decided it would be better for the physicians themselves to guide the movement, take charge of the situation and direct its procedure than to leave it to politicians.

Of course, nothing could have been further from the truth.

On the same day, the Springfield (Ohio) *News* said:

> Nowhere in the world, we suppose, can be found a body of people of more liberal minds in the field of their work. Stand-patters in medicine are few. Reckless radicals are equally few. We omit, of course, the charlatans with which every profession is at strife. The great body of physicians reflect the open mind, the progressive spirit, the careful scientific approach to the problems of health.
>
> As in other fields, it is the problem of distribution which gets the doctors by their ears. It is interesting to note how like the rest of the problems of distribution the medical problem of distribution runs. Shall it be small profits with a quick turnover, or larger margins with slower sales? Shall medicine be operated on the automobile principle of quantity production, with prices set low to keep consumption high, or shall prices be fixed and held firm, leaving the consumer to come if he can? . . .

When private industry could not furnish the people jobs, government stepped in and made jobs for them. Is it to follow that government, if private medicine does not find ways to help all the sick, must step in and furnish the medical service which private medicine has failed to provide? The association once more votes no, but the question is unanswered still.

On June 11 the Charlotte (N. C.) *Observer* entered the forum with the following solid pronouncement:

It is not surprising that the delegates to the American Medical Association meeting in Atlantic City turned thumbs down on the resolution of the New York Medical Association which virtually invited public medicine or socialistic medicine, whichever of the two names sounds the better or the worse.

The surprising thing is that the New York doctors dared propose the innovation.

The resolution would recognize as a fundamental principle "that the health of the people is the direct concern of the government and that a national public health policy directed towards all groups of the population should be formulated."

In refusing to adopt the resolution, the American Medical Society accepted a substitute by which organized medical bodies would be within their rights in cooperating with the Federal government to the end of promoting the public health.

Very few doctors of our knowledge favor governmental medicine.

By far the larger majority are tooth and toe-nail against it.

We doubt if six doctors in Charlotte would agree to the federalization of their profession.

Even so, quite a few do figure that the private practitioners will not be longer able to ignore the fact that the public health is a problem that must be faced and intelligently handled by the profession if the government is to be warded off from this field.

This means, of course, that the medical profession must get astraddle the problem on its own initiative, so readjust its private practice as to handle whatever of essential public health service may require of them and otherwise lend their cooperative hand to the government in the latter's zeal to see that this problem is intelligently and thoroughly mastered.

It's up to the doctors.

As it is in any other field of private engagement in which the government threatens, either private individuals who are in the profession must function with an eye to the public welfare, otherwise see themselves driven out before the oncoming hosts of Federal bureaucrats.

And on June 12 the Montgomery (Ala.) *Journal* said:

Through the years the medical profession has labored to keep public health service out of politics. It has been jealous of its reputation, and averse to taking any steps that might make health measures and service dependent upon political considerations. Alabama has made more progress than most states in keeping health service wholly independent of politics. Here, the public health work is managed and directed wholly by the medical profession, and the service rendered is contingent only upon the necessary funds which the legislature is willing to place at the disposal of the department.

It is not surprising that the American Medical association at its Atlantic City convention should be suspicious of movements to give health insurance under public supervision, or that medical service should be guaranteed to all citizens to be paid for out of the public treasury. This is known as social medicine and doctors hesitate to put themselves under the control and direction of public officials in such manner. Yet it is a subject of such growing importance that ways must be found to provide service for those not now receiving it. New York's association has broken the ice by its recommendations to the national body, and while that state's first proposal was disapproved by the national body it was received more sympathetically and with more keen appreciation of the need than ever before. It is certain that enormous progress is soon to be made in expansion of medical service to those not now able to receive it for one cause or another.

On June 10, Senator Lewis spoke to the House of Delegates, and by the end of the week it began to be clearer that forces were at work both in the House of Delegates of the Association and in legislative and administrative quarters in Washington, agitating the calm which prevailed over the slowly but surely progressing medical efforts toward a sane evolution in medical practice. The Brooklyn *Eagle* on June 14 voiced its suspicion of any attempt to federalize medical practice in the following editorial:

Although he brought the Presidential greeting to the American Medical Association, Senator Lewis of Illinois was not, it is pleasing to note, speaking for the President when he urged that each medical man, sharing the Government's interest in the public health, consider himself an "officer of the Federal Government."

Senator Lewis may not have meant the words as they sounded, but there is an unpleasant ring to such a phrase, an echo from abroad where talk of "subservience to the state," "totalitarianism" and "authority" is not unknown. We have schools of medicine in the United States which rank with the finest in the world; wise men guide these schools, and wise men guard the entrances to the medical profession with as great a concern for the public health as that any government is likely to display.

We do not, and would not, like to think of our doctors as officers of the Government, nor as sublimated G-men; we prefer to think of them as products of long schooling and high technical training, individual supporters of an ethical oath that has come down to them from Hippocrates.

In New York on June 13 the New York *Times* made clearly apparent its attempt to voice editorially favoritism for the views advanced from time to time by various foundations, leading directly toward state medicine. One now begins to wonder why the editorial policy of the New York *Times* should be so definitely opposite in the field of medicine to what it has long represented in other fields. Thus the New York *Times* said:

Unctuous though it was, Senator J. Hamilton Lewis's exposition of the Administration's policy made it clear that "the question for you doctors to decide is not whether you like it or whether you don't. The question for you is: 'What is to be done about it.'" The Association was thus put on its mettle. . . .

We have the facts on which a sound public health policy can be based. They are to be found in the twenty-three volumes issued by the Committee on the Costs of Medical Care, in the publications of the American Foundation and the Julius Rosenwald Fund and

other philanthropic organizations and in scores of detailed studies—most of them derided in their time by the American Medical Association in its Journal. Thanks to this vast literature and to foreign experience we are in a far better position to formulate a correct health policy than was Bismarck in 1884 or Lloyd George in 1912.

Organized professional men have never been confronted with a task so difficult or one so heavily charged with patriotic responsibility as are the physicians now. If the Association persists in holding to its old Bourbonism, if it fails to take cognizance of new social exigencies, both the medical profession and the people will be the losers. It may have to subordinate itself to bureaucratic control, with a consequent loss in power and prestige, and the people may have to accept a kind of medical service that physicians deplore.

The New York *Herald Tribune* seems to have put its finger rather clearly on the exact situation in an editorial aptly headed "Doctor Meets Tiger":

The avidity with which the Roosevelt administration avails itself of any excuse to seize, centralize and regiment any and every means of livelihood in this country is well illustrated by the flamboyant message from the President which Senator J. Hamilton Lewis delivered to the American Medical Association in Atlantic City on Thursday. If the professional delousers of pedigreed poultry were today to suggest that their work might well be coordinated through a Federal bureau the President would tomorrow have a distinguished henchman on the job to tell them that the delousing of pedigreed poultry was such an important national problem that they must surrender it at once to Washington and consider themselves, pending suitable legislation, Federal agents.

For several years past the medical profession has been subjected to microscopic study by a great variety of agencies. Some have been looking for evidence to prove that all medical care should be socialized; others have been bent upon showing that socialization would be demoralizing and ruinous. Lately the usually reticent doctors have, in self defense, become highly articulate. Among themselves they have evolved suggestions counter to state medicine. At least three considerations have moved them to think furiously about the medical care of the chronically indigent.

Their first concern has been to forestall anything like "socialized medicine," "state medicine" or compulsory health insurance, to all of which an overwhelming majority of our doctors are opposed, both as scientists and as good American citizens.

Their second consideration has been to relieve the individual doctor of his wholly disproportionate contribution to charity. All conscientious doctors give an enormous portion of their time and of their vital energies to the care of persons who would like to pay them but cannot; and of more persons still who would not pay them if they could. Why should not governments, national or local, pay for such services since they are bleeding every one white to finance other aspects of "the more abundant life" for both the unfortunate and the shiftless?

A third consideration is that, with the raiding of private capital a national policy, private subscriptions to hospital funds are naturally dwindling and will continue to dwindle. . . .

Moved by these considerations, the New York Medical Society submitted to the American Medical Association in Atlantic City, on June 7, a proposal that the medical care of the indigent should be publicly financed, such work to be coordinated through a Federal department. The detailed declaration of principles was almost identical with that which the American Foundation Studies in Government, with ability and complete impartiality, recently boiled down from doctors' replies to its questionnaires. . . .

If Senator Lewis . . . conveyed anything like the President's sentiments, as he claimed to be doing, he made a not too gracious acceptance of the medical profession's supposed surrender of its autonomy to the Federal government. He seemed to be warning the doctors that as eleventh-hour penitents, seeking New Deal favor before it was too late, they would shortly be subject to rigid discipline. This is what comes of trying to stroke the tiger's nose. He snaps your hand off at the wrist and then makes a leisurely meal of you.

Group Hospitalization

NOTE.—*This is the ninth of a series of articles on Group Hospitalization, prepared by the Bureau of Medical Economics of the Association, which is to be published weekly in the* AMERICAN MEDICAL ASSOCIATION ORGANIZATION SECTION. *When completed, the series will be available in reprint form on request at the headquarters of the Association.*—ED.

Chapter III

THE STATUS OF GROUP HOSPITALIZATION PLANS

In cooperation with the Council on Medical Education and Hospitals, letters and schedules were sent to hospitals in every community in the United States where a group hospitalization plan was thought to be in existence. In all, 172 such plans were located. Of these, fifty-six were in operation, thirty-four were still being promoted and eighty-two were discontinued, consolidated with other plans, not in existence or otherwise inactive. If the twenty-two plans formed in 1936 are not considered because they have not had a sufficiently long period of existence to determine whether or not they will endure, it appears that, out of 150 group hospitalization plans promoted between 1918 and 1935, fifty-one, or about 34 per cent, are in operation, seventeen, or 11 per cent, are proposed, and eighty-two, or 55 per cent, are inactive. This indicates a strikingly high mortality for group hospitalization plans. The large number of group hospitalization plans that never started operating should be minimized somewhat, because many of them were never very formally promoted and some were consolidated with more successful plans. Likewise, some of the proposed plans may start operating. More complete information may also reveal that some of the plans considered to be inactive have been revived.

Subtracting from the fifty-six plans found to be in operation those which have since been discontinued or reorganized as insurance com-

panies, and adding the new plans that have just recently started operating, there are now sixty group hospitalization plans in operation in fifty-five communities throughout the United States. These plans represent a total of at least 490 hospitals, avoiding duplication of hospitals appearing in more than one plan, or about one eighth of the general hospitals in the United States.

The information furnished by thirty-four group hospitalization plans is dealt with in detail in the complete report of the survey. These plans represent a cross section of all the group hospitalization plans because they include the majority of operating plans, over two thirds of all members enrolled, an adequate number of the plans organized between 1918 and 1936, and a fair proportion of commercial and noncommercial plans of both the single and multiple hospital type. Only a condensation of the more essential features reported by these plans will be presented here.

ORGANIZATION

There are two major classifications of plans: "noncommercial" plans operated not for profit with the control of the service provisions and membership funds in the hands of the hospital administrators and physicians, or an agency properly representative of them, and "commercial" plans operated for profit or not for profit and directed by a sales agency which contracts with the hospitals. Both types include single and multiple hospital plans. These classifications have been discussed in chapter I. The commercial plans directed by a sales agency, which dominated the early organization of group hospitalization plans, have been gradually overshadowed by noncommercial plans, particularly those including nearly all the hospitals in the community. The change in the type of plan, of course, is a direct result of a change in the form of organization, administration and sales methods.

Different forms of organization have been developed because of local conditions and state statutes. In most communities, either a nonprofit, no-stock corporation or a nonprofit association governed by hospital administrators, physicians and lay persons was formed. In some states the plans had to be incorporated under the insurance laws; in other states they were incorporated under special enabling acts but were still subject to the insurance laws to some extent, and in still other states they were formed as membership corporations under the laws relating to benevolent, educational and miscellaneous associations. The problem of selecting the most desirable form of organization is complicated by the necessity to comply with state laws.

The control over the policies and relations among patients, hospitals and physicians can be placed in proper hands despite the various forms of organization. Three groups demand representation—the members, the hospitals and the physicians. At the same time a management familiar with insurance practices is essential. The determination of actuarially sound bases for premium rates, a careful selection of risks and the wise handling of the funds of the members are insurance duties which cannot be lightly undertaken by the inexperienced. The success of a group hospitalization plan is largely determined by the administrative personnel. It is highly desirable that the administration be as nearly impartial as possible. It would therefore seem contrary to good public policy for the board of trustees to be made up solely of the representatives of the hospitals with which the insuring corporation must carry on its business.

The initial funds for organization and beginning operations are obtained from foundations, individual philanthropists, community funds, welfare organizations or member hospitals. There is little agreement among the organizers of group hospitalization plans as to the size of the fund required to promote the plan and to pay for the benefits used by members until the income from premiums becomes sufficient. Undoubtedly, such a fund needs to be large enough to provide for all costs of the plan during a period of several months. The attempt to finance an insurance plan during the initial period out of subscriptions from members is "insurance on a shoestring." Such a practice is fraught with many dangers. The initial funds may be repaid out of earned premiums after operating expenses, payments to member hospitals, and reserves have been met.

The charitable nature of hospitals makes it mandatory that no private investors should be allowed to advance money as stockholders or owners. Hospitals will lose prestige if they participate in any activity that has even a taint of commercialism. By the same token, the payment of large sums of money for the installation of a certain system seems unnecessary, particularly when by far the majority of the plans have been able to develop their own arrangements.

The presentation of the plan to the public requires meticulous supervision. The conduct of an effective and ethical sales program, without the expenditure of too large a share of the receipts from members, is a problem. Directors are placing increasing reliance on payroll deductions to secure a good selection of risks and to reduce acquisition costs. Care should be taken to avoid selling the plan to the employer instead of to the employees. Com-

pulsory payroll deductions will reintroduce the evils of "check off systems." The use of salesmen on salary is preferable to the employment of solicitors on a commission basis, or the delegation of the entire sales program to an outside sales agency.

Solicitation is denounced by the Principles of Medical Ethics and by the code of ethics of hospitals. Hospital administrators, in devising a sales program for group hospitalization plans, obviously cannot avoid their responsibility to adhere to the principles of medical ethics governing advertising and solicitation. Advertising of medical services and solicitation of patients almost invariably result in a deterioration of the services rendered. The medical ethics opposing such advertising and solicitation are designed to protect the patient by maintaining the standards and quality of medical service. Hospitals cannot disclaim responsibility for the advertising programs of the group hospital plans in which they participate. Neither can responsibility be waived by the fact that all hospitals benefit equally when a "Hospital Service Corporation" conducts the advertising campaign. The second principle of medical ethics stipulates that the principles applicable to an individual also govern the group and that a business organization does not relieve the members of their individual professional obligations.

A constant danger in advertising is the encouragement of competitors. Other organizations selling a hospitalization service will increase their activities to take advantage of the publicity. The public then becomes confused as to the merits of respective plans. The result is harmful to medical and hospital services, since good service can seldom compete with inferior service on a price basis. The emphasis that has been placed on price, even by noncommercial plans, may lead to price competition among adjacent plans. The following headlines taken from the advertising folders illustrate the possibility of confusing price competition:

A Few Cents a Day will Keep Hospital Bills Away
Hospital Care for 3-cents-a-day
Your Hospital Care for 2½ Cents a Day!
15¢ a Week for Hospital Care
Hospital Care for 2½ Cents a Day
2½ Cents a Day for Hospital Care, and No Red Tape
2¢ per Day will Protect you Against the Unforeseen Disaster of Hospital Bills
Hospital Care At Less Than 2¢ A Day
Hospital Care At The Least Cost

While none of these plans are in the same community, few have any restrictions limiting the area from which subscribers may be accepted. Already some of the larger plans are reaching out into communities without group hospitalization plans and are offering to sell contracts to persons in those communities. The subscribers in such outlying communities are not expected to travel to the participating member hospitals of the plan but may be hospitalized in their own community at a fixed rate per day. The trustees of hospitals and the physicians in each community should be permitted to decide on the desirability of forming a group hospitalization plan without intervention by outside plans.

(To be continued)

Official Notes

ABSTRACT OF MINUTES OF MEETING OF BOARD OF TRUSTEES AT ATLANTIC CITY, JUNE 6-10, 1937

Date of San Francisco Session

The date June 13-17, 1938, was selected for the annual session of the Association to be held in San Francisco.

Representatives at Meeting of British Medical Association and Canadian Medical Association

Dr. Morris Fishbein, Editor of THE JOURNAL, was delegated to represent the American Medical Association at the meeting of the British Medical Association to be held in Belfast, July 20-23, and also to visit several foreign countries for the purpose of observing medical practice and medical education.

Dr. W. D. Cutter, Secretary of the Council on Medical Education and Hospitals, was designated to represent the American Medical Association at the meeting of the Canadian Medical Association to be held in Ottawa, June 21-25, and Dr. Frederic S. Wetherell of Syracuse, N. Y., was designated alternate.

Date of September Meeting of Board

The date for the September meeting of the Board was fixed as September 16 and 17.

Legislative Measures

The Board approved of the bill before the House of Representatives which proposes to give to the Public Health Service control over all surgical sutures, similar to that exercised by it over serums and vaccines.

It also considered bills proposing to appropriate large sums for cancer research. The Board of course approved the principle of extension of scientific research but feels that it is highly important to maintain and encourage original investigation by individual workers and private institutions.

It opposed H. R. 6906, which proposes to establish a new registry for marihuana similar to the Harrison Narcotic registry, because of the additional tax that physicians, manufacturers and others would have to pay, thus adding to the cost of the care of the sick, and because of the additional forms to be filled out.

Increase in Price of American Medical Directory

An increase in the price of the American Medical Directory, effective with the fifteenth edition, was decided on; i. e., prepublication price $15, postpublication price $18.

Motion Pictures

The Board approved the continuation of the motion picture of the headquarters and further work on the film on syphilis to bring it to a more satisfactory completion.

Appropriations for Exhibits and Study of Postgraduate Education

Additional appropriations were made for scientific exhibits and for the study to be made of postgraduate education.

Reorganization of the Board of Trustees

Dr. Arthur W. Booth was elected as Chairman of the Board and Dr. Austin A. Hayden as Secretary for the ensuing year. Drs. James R. Bloss, Charles B. Wright and Austin A. Hayden were elected to constitute the Executive Committee, and the same committee will serve as Finance Committee. Drs. Allen H. Bunce, Roger I. Lee and Thomas S. Cullen were reappointed to serve as the Committee on Scientific Exhibit.

Miscellaneous

Resolutions from the House of Delegates and numerous other matters received consideration during the meetings of the Board. Some of these matters not reported on to the House of Delegates were referred to the Executive Committee and to councils of the Association for report and will come before the Board again at a later date.

Medical Legislation

Medical Bills in Congress

Change in Status.—H. R. 4716 has passed the House, proposing to authorize an appropriation of $1,500,000 to erect a marine hospital in the state of Florida.

Bills Introduced.—S. 2700, introduced by Senator Robinson, Arkansas, proposes to reorganize agencies of the government and, among other things, to establish a department of welfare for the coordination and promotion of public health, education and welfare activities. S. 2705, introduced by Senator Black, Alabama, proposes to provide for the taking of a census of employment, unemployment, occupations and other related information of public interest. H. J. Res. 428, submitted by Representative Hunter, Ohio, proposes to establish a national health center in the Public Health Service, as a permanent memorial to Thomas Jefferson, to promote research as to the cause, prevention, diagnosis and treatment of cancer; to provide better facilities for the diagnosis and treatment of cancer; and to authorize the Surgeon General, with the approval of the Secretary of the Treasury, to make such rules and regulations as may be necessary to carry out the provisions of this joint resolution. H. R. 7643, introduced by Representative Eicher, Iowa, proposes to promote and further develop industry and commerce through business research and research in the fields of physics, chemistry, metallurgy and engineering.

Illinois

Bill Enacted.—H. 114 was approved by the governor June 23 and becomes effective July 1, requiring both parties to a prospective marriage, as a condition precedent to the issuance of a license to marry, to present to the appropriate county clerk a physician's certificate that each party is free from "venereal diseases as nearly as can be determined by a thorough physical examination." There must be attached to the application for a license to marry "laboratory reports of microscopic examination for the gonococcus for gonorrhea and the blood Wassermann or Kahn test for syphilis." The examination and laboratory procedures referred to must be made no earlier than fifteen days prior to the issuance of the license to marry.

Medical Economic Abstracts

FREE MEDICAL SERVICE BY PHYSICIANS

A survey under the auspices of the United Hospital Fund of the hospitals of New York reports the following facts concerning payments to physicians in the hospital study:

Of the hospitals in the metropolitan area from which data were received, 95.3 per cent of those in New York City paid some member of the medical staff, and 91.3 per cent of those in the area outside; but of the 18,636 members of hospital medical staffs in New York, only 1,552 (8.3 per cent) were paid, and of the 1,602 members of hospital medical staffs in the area outside New York City, only 200 (12.5 per cent) were paid.

Of the 3,151 attending physicians in New York City who served in outpatient departments only, but 109, or 3.5 per cent, were paid.

The percentage of each category of the regular medical staff paid was:

	In New York City	In the Area Outside New York City
Consultants	0.8	2.0
Attending physicians	3.4	3.1
Pathologists	45.7	81.0
Roentgenologists	56.3	64.0
Physical therapists	36.0	11.1
Anesthetists	22.9	24.1
Admitting physicians	100.0	...
Residents	77.6	96.8
Interns	9.4	89.7
Other special department physicians and dentists	28.5	7.7

PAPER WORK IN SICKNESS INSURANCE

Complaints by German physicians of the excessive amount of "paper work" required in sickness insurance are almost continuous. Dr. G. Lettau in the *Deutsches Arzteblatt*, May 22, 1937, pages 511 to 513, speaks somewhat sarcastically in saying that physicians recognize the value of the writer in society but that there is considerable doubt whether several years of academic or medical preparation is necessary to fit one for the profession of filling out insurance blanks. "There are," he continued, ". . . at least five to ten thousand German insurance physicians who have become 'writers' and who must give to this 'side profession' time which should be given to study for further development in their profession, to closer investigation of their patients, or even to recreation or art and literature. . . ." He points out that the evils created by this condition are not confined to the physician but that "many patients are injured because the physician is too busy with the drudgery of writing to give a proper diagnosis and treatment."

He gives a list of illustrations of how, in order to correct errors or because of negligence on the part of patients, it is necessary to write letters and telephone or else lose the payment for service. As a result, much less time is often given to diagnosis than to writing. This wastes not only the physician's time but also that of the patients who are waiting in the reception room.

ORGANIZATION SECTION

of the

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SATURDAY, JULY 24, 1937

CONTENTS

	PAGE
PHYSICIANS DELINQUENT UNDER THE SOCIAL SECURITY ACT	9B
GROUP HOSPITALIZATION	11B
MEDICAL LEGISLATION	13B
WOMAN'S AUXILIARY	14B
MEDICAL ECONOMIC ABSTRACTS	14B

Physicians Delinquent Under the Social Security Act

(Prepared by the Bureau of Legal Medicine and Legislation, American Medical Association)

Physicians and persons operating private laboratories and hospitals, as employers of such nurses, technicians, secretaries and other helpers as are customarily in their service, are liable for certain payroll taxes imposed by the Social Security Act. A corporation or association operating a laboratory or a hospital is likewise liable unless it is a charitable organization within the meaning of the law. Any physician or other person and any corporation or association that is liable for these taxes, that has thus far neglected to procure an official identification number and that has failed to make the tax returns required by law is now liable for the penalties stated below and should take immediate action to correct the situation and to prevent the accrual of further penalties.

The Social Security Act imposes two distinct payroll taxes on employers. An employer within the meaning of the law is a person, association or corporation that engages the services of another for wages, salary or commission. The fact that a person is a physician and the fact that an association or corporation owns and operates a hospital or a laboratory does not relieve that person, association or corporation from liability as an employer. The Social Security Act imposes a tax on employees under some circumstances, but as it is the duty of the employer in any such case to deduct that tax from the money due the employee and to pay it over to the proper collector of internal revenue, this discussion will be confined to the liability of the employer for the taxes imposed under the act. The liability of the employee will incidentally be made clear.

CLASSIFICATION OF EMPLOYERS

For the purposes of discussion, employers may be grouped into two classes: (1) employers exempt from the taxes imposed by the Social Security Act and (2) employers liable for such taxes. Employers liable for such taxes may be best considered (*a*) as a whole, in connection with the tax imposed by law on all nonexempt employers and (*b*) as non-tax-exempt employers of eight or more. This classification will facilitate an understanding of the duties and taxes imposed.

Where two or more employers each of whom is engaged independently in the practice of his profession or the pursuit of his business divide among themselves the liability for the salary or wages of a given joint employee, such as a nurse or a stenographer, each such person is regarded as an independent employer and is required to report the amount paid by him on account of such service, to pay his tax on that amount, and to collect from the employee the amount due from the amount of the salary payable to him, and to remit it to the local collector of taxes. It is not proper for any one member of the group to pay the entire salary or wages and to report himself as the sole employer of the joint employee.

TAX-EXEMPT EMPLOYERS

Exempt Occupations.—Certain occupations are expressly exempted from the taxing provisions of the Social Security Act and denied its benefits so far as they relate to unemployment and old age. Among the exempted occupations are (1) agricultural labor, (2) domestic service in a private home, (3) casual labor not in the course of the employer's trade or business, (4) service performed in the employ of the United States or of any state or subdivision or instrumentality of either, and (5) service performed in the employ of a corporation, community chest, fund or foundation organized and

operated exclusively for religious, charitable, scientific, literary or educational purposes, or for the prevention of cruelty to children or animals, no part of the net earnings of which inures to the benefit of any private shareholder or individual. Physicians who employ only persons engaged in one or more of these exempted employments, and physicians and employees who engage in any such exempted occupation, are not by reason of such employment affected by the taxing provisions of the act and are not entitled to its old age or unemployment benefits.

Procedure in Establishing Exemption.—A privately owned hospital or a privately owned laboratory, if exempt from taxation at all, can acquire a tax-exempt status only because it is owned and operated by a "corporation, community chest, fund, or foundation, organized and operated exclusively for religious, charitable, scientific, literary, or educational purposes, or for the prevention of cruelty to children or animals, no part of the net earnings of which inures to the benefit of any private shareholder or individual." If a hospital or a laboratory claims exemption because of such ownership and operation it should establish its tax-exempt status as a matter of record with the Commissioner of Internal Revenue, through the collector of internal revenue for the collection district in which such hospital or laboratory is located. The corporation or association owning and operating the hospital or laboratory should file with the local collector of internal revenue an application for official classification as a tax-exempt organization. Detailed information concerning this matter can be best obtained from the local collector.

TAX LIABILITY OF ALL NON-EXEMPT EMPLOYERS

Purpose and Amount of Tax.—To provide so-called old age benefits for eligible workers after they attain 65 years, title VIII of the Social Security Act imposes on every non-exempt employer of one or more persons—that is on all employers of any person not engaged in one of the exempted occupations—during 1937, 1938 and 1939 a tax equal to 1 per cent of the wages paid employees. Wages paid to any one employee, however, in excess of $3,000 annually are not taxable. Each employer must collect from every one of his employees 1 per cent of the taxable wages paid to such employee. Even though there are no cash payments, if an employee receives any other thing of value in return for his services, such as goods, lodging, food and clothing, a tax becomes due and payable computed on the cash value of the benefits conferred. The Commissioner of Internal Revenue has ruled that payroll taxes must be paid with respect to the employment of a student nurse who receives no remuneration whatever other than board and lodging. The same rule would apply with respect to the employment of interns in non-tax-exempt hospitals.

Procedure in Making Tax Returns.—Every non-tax-exempt employer of this class must execute form SS4, which is an application for an identification number for the employer. The employer must see to it also that form SS5, an application for an account number for the individual employee, is properly executed by each of his employees. These forms and all others referred to can be had on request from the local collector of internal revenue or from the Social Security Board, Washington, D. C.

The employer must remit monthly both the tax he himself pays and the tax he collects from his employees to the collector of internal revenue in the district in which the business or profession of the employer is carried on. In remitting these taxes, the employer must execute form SS1 before the last day of the month following the one for which the tax is paid. Before July 31 of the current year the employer must execute and mail to the proper collector of internal revenue form SS2 and form SS2a. The latter form is prepared so as to show the name and the account number of each employee and the taxable wages that have been paid him in the six months period ended June 30. Thereafter, form SS2 and form SS2a must be executed quarterly.

ADDITIONAL TAX LIABILITY OF EMPLOYERS OF EIGHT OR MORE

Purpose and Amount of Tax.—Title IX of the act levies a payroll tax on employers of eight or more, separate, apart and in addition to the payroll tax levied on all employers and described above. For employment during the year 1937 this tax is at the rate of 2 per cent of the payroll. This tax is imposed on the employer alone and there is no corresponding tax on employees. The tax is designed to provide or to aid in providing funds for the payment of compensation to eligible workers during periods of unemployment. If the employer is located in a state having a state unemployment law approved by the Federal Social Security Board, he is permitted to deduct from the tax due the United States the amount paid under the state law but not to exceed 90 per cent of the federal tax.

States Unemployment Compensation Laws.—Practically all states have now enacted unemployment compensation laws. The federal tax just referred to, as was noted, is imposed on all employers of eight or more, other than employees engaged in one or more of the exempted occupations named above. Some state unemployment compensation laws, how-

ever, impose unemployment compensation taxes on employers of as few as two employees or on employers of some other number of employees less than the number stated in the Federal Social Security Act. So, too, other provisions of such state laws are of a more or less local character. Whether a physician, or a person, association, or corporation operating a laboratory or a hospital, is or is not liable for the payment of an unemployment compensation tax under a state law, and, if so, the amount of that tax, the records to be kept and the returns to be made in connection with it, and the method of paying it, should be ascertained by inquiry of the proper state officers.

Procedure in Making Tax Returns for Federal Unemployment Compensation Taxes.—Affected employers are required to make tax returns to the local collector of internal revenue annually not later than January 31 next following the close of each taxable year—that is, December 31. This tax return should be made on form 940. The tax may be paid either annually at the time the form is executed and filed or quarterly as in the case of income taxes.

COMPLIANCE WITH SOCIAL SECURITY ACT NECESSARY

Notwithstanding the frequent explanations in THE JOURNAL and the *Bulletin* of the application of the Federal Social Security Act to physicians as employers and employees, and to hospitals as employers and to their employees, ignorance and misunderstanding regarding the matter seem to be widespread. While there is willingness among all officials to take into consideration the newness of this law in enforcing it, yet there are limits beyond which the enforcing officers cannot go. Physicians, associations and corporations coming within the scope of this article will do well, therefore, to give the matter immediate and serious consideration if they would avoid penalties provided by the Social Security Act for those who default in the discharge of the duties required by it. Penalties for delinquencies are levied against the employer, not the employee, and range from 5 per cent to 25 per cent of the tax due, depending on the period of delinquency. Criminal action may be taken against those who wilfully refuse to pay their taxes.

Group Hospitalization

NOTE.—*This is the tenth of a series of articles on Group Hospitalization, prepared by the Bureau of Medical Economics of the Association. When completed, the series will be available in reprint form on request at the headquarters of the Association.*—ED.

Valuable free publicity is frequently obtained by securing the cooperation of women's clubs, charitable organizations and other civic agencies in the community. The desire to have the support of these allies has been a strong factor in encouraging the formation of real community plans rather than commercial schemes. The purpose of such publicity should be education and should not embody "scare" or "high pressure" advertising tactics. The most effective advertising is the word of mouth, person to person, unsolicited recognition of the plan's known merit and established reputation for satisfactory service. This is the ethical and professional method of securing patients.

THE CONTRACT

The contract between the hospital service plan and the subscriber is of prime importance. In the complete report, the provisions of thirty-four of these contracts have been closely examined. Generally, the subscriber is entitled to twenty-one days of hospital service, with an allowance of one-fourth discount after the period of twenty-one days. Hospital service includes bed and board in semiprivate room accommodations, the use of the operating room, the services of the anesthetist if "a salaried employee of the hospital," general nursing care, routine medicines, ordinary surgical dressings and routine laboratory services. Certain special benefits may be offered as sale features. These include the hospitalization of members with chronic conditions for "preliminary hospitalization pending diagnosis," a discount on services not included in the contract, yearly physical examinations, special urine analyses, specified services in the outpatient department, and ambulance service. The listing of doubtful benefits such as "nursing supervision" and postmortem examinations is indulged in by a few plans.

The provisions for anesthesia and routine laboratory services, including x-ray services, have caused most of the disputes about group hospitalization plans. The inclusion of the professional services of anesthetists, pathologists and radiologists in the contract for the sale of hospital facilities has caused the medical profession to question the propriety of such a policy. The offering of the services of physicians as a benefit in a contract to be sold to persons who have the services of other physicians available has always been held injurious to the practice of medicine and to the public health. Nevertheless, practically every group hospitalization plan offers some medical services. The strict exclusion of medical services would probably injure the salability of the con-

tracts. The services of pathologists, radiologists, physical therapists, anesthetists and interns are admittedly included in many plans. The medical services offered are indicated by the following benefits: x-ray and radium treatments; roentgenograms; anesthesia; general services of intern and resident staff; urinalysis, blood count, blood chemistry, gastro-intestinal, basal metabolism, electrocardiographic and other clinical and laboratory examinations; physical therapy; yearly physical examinations; first aid or treatment of ambulatory patients, and immunizations.

The limitations to the contract benefits are more extensive than they appear on a casual reading of the contract. No condition may be hospitalized which exists at the time of application. A waiting period of fifteen days is often required before any condition, excepting in an emergency, may be hospitalized. Obstetric patients cannot be hospitalized before one year. Waiting periods of ten or twelve months may be imposed for certain specified surgical procedures, such as tonsillectomies, removal of adenoids and herniotomies. The list of conditions not hospitalized most frequently includes contagious or venereal diseases, tuberculosis, self-inflicted injuries or attempted suicide, nervous or mental disorders, injuries resulting from riots and civil commotions, diseases not common to the two sexes, conditions resulting from the use of alcohol or narcotics, "rest cures," and injuries or diseases for which hospitalization is available without cost to the subscriber.

One curious limitation releases the corporation from liability during an epidemic or catastrophe after repayment of the subscriber's annual premium. The following comment on this provision appeared in a report made by a state insurance examiner:

> It would seem that a refund of a premium paid in where, through no fault of the subscriber, admission to a hospital cannot be obtained, is an unfair discrimination.

The changing phraseology of this provision indicates the recognition of its inequity.

Without implying any "ethical imputations," it is of interest that one proposed hospital service law stipulates the size of type to be used in hospital service contracts and specifies that the limitations of the contract must be given greater prominence than the benefits.

Many plans attempt to give the subscriber a liberal choice of physicians and hospitals; however, free choice of physician and hospital may be interfered with when there are competitive plans or when the hospitals in the community do not all participate in the plan. Hospitalization in nonmember hospitals in the same community may not be permitted except in an emergency or when all the member hospital beds are filled. The hospitalization benefit in nonmember hospitals usually offers fewer patient days or a smaller payment for each patient day. Practically all plans allow the subscriber to be hospitalized in any hospital in an emergency or while the subscriber is traveling. It is claimed by one plan that "hospitalization is provided in any hospital in the world." The attempt to offer widespread free choice raises the problem of opening all hospital staffs. Whether or not this would be good for hospital practice is not within the scope of this report. However, it is becoming increasingly apparent that the influence of hospital service corporations in the selection of hospitals and physicians may be more far reaching than might be supposed.

MEMBERSHIP

Most plans are open to employed persons and their dependents in "good health." In the initial stage of promotion, membership may be restricted to employed groups of persons. Ultimately, it appears that most plans will accept the dependents of group members as well as individuals and their dependents. Only one plan imposes an income limit as a barrier to membership. Members are accepted up to the age of 65 years. The selection of members according to groups, employment, age and other restrictions was designed to improve the soundness of the plan by eliminating as many adverse risks as possible.

The current policy of ignoring an income limit may prove to be at variance with the original purpose of enabling persons with limited means to secure low cost hospital service. When a drive for membership in a hospital service plan starts, it is not unusual to find the names of prominent citizens among the first subscribers. The director of one plan was led to comment that "there will be criticism if we take too many millionaires." If the group hospitalization plan is designed to aid persons with limited means to secure low cost hospital services, it would seem that such services should be rendered at less than regular charges. Accordingly, an upper income limit would be necessary. If no consideration in rates is made for persons with limited means, there is little justification for an income limitation. It is not consistent to claim an altruistic purpose for group hospitalization plans when all members are charged the same premiums and hospitals receive full rates for services rendered.

As of Jan. 1, 1937, forty-nine plans reported 455,032 subscribers, with 229,792 dependents or a total membership of 684,824. These membership statistics do not include the policyholders of hospital insurance companies or the members of student health services or mutual benefit plans. About 3 per cent of the total population

of the communities in which group hospitalization plans are located would be equivalent to the total membership in all plans. However, most of the plans have restricted their membership in one manner or another, so that the total population is not eligible for membership. The eligible population, in most instances, would consist of persons employed in groups of ten or more, and their dependents. The exact number of such persons is not available, but it is apparent that group hospitalization plans have not yet enrolled any sizable percentage of the eligible population. Furthermore, since most of the plans draw their membership from widely scattered areas, the number of members enrolled represents a small portion of the total population reached.

The rate of growth in group hospitalization membership is most interesting. During the year 1936 the total number of members increased by 133 per cent. In many of the larger plans the number of members increased over 200 per cent during the year. For one plan the increase was 700 per cent. This rapid enrolment of members has an important influence in keeping the number of persons hospitalized and the costs of hospitalization at a minimum. It is also of interest to note the concentration of membership among a few plans. Three plans include over 50 per cent of the membership, and ten plans include almost 90 per cent of the membership. The tendency is for a few plans to enroll an increasingly disproportionate share of the members.

The majority of the plans are in the large cities of the densely populated sections throughout the United States. Only eighteen operating plans are in communities with a population of less than 100,000, and many of these plans draw their membership from a considerable area, such as from several counties or the entire state. The problems of collecting the subscriptions and of securing the enrolment of large employed groups are difficult in small communities. In such communities the plans would have to sell to a relatively small number of individuals, which generally results in an adverse selection of risks and greatly increases the acquisition costs. The small city may be suitable for a group hospitalization plan if it is an industrial or manufacturing center with a number of groups of employed persons.

So far as membership is concerned, the progress by group hospitalization plans has been restricted to a small number of plans in the densely populated sections of the United States. It is significant to observe that the membership does not yet appear to include persons in the very low income groups or those in rural areas. Likewise, the unemployed, persons with chronic conditions, and the aged are frequently excluded. The directors of the plans are aware of the failure to reach these groups, and suggestions have been made to include certain of the persons now excluded if financial conditions will permit. These suggestions include lowering of the premium rate to reach the low income groups, liberalization of the contract benefits to include the unemployed and to permit hospitalization of chronic conditions, and a federation of hospital service plans to permit the enrolment of persons in rural areas.

(To be continued)

Medical Legislation

Medical Bills in Congress.

Changes in Status.—S. 2388 has been reported to the Senate, proposing to increase the punishment of second, third and subsequent offenders against the narcotic laws. H. R. 4290 has been reported to the House, proposing to authorize acquisition of complete title to the Puyallup Indian Tribal School property at Tacoma, Wash., for sanatorium purposes. H. R. 6906 has been reported to the Senate, with amendments, proposing to impose an occupational excise tax on certain dealers in marihuana, to impose a transfer tax on certain dealings in marihuana, and to safeguard the revenue therefrom by registry and recording.

Bills Introduced.—Senator Ashurst of Arizona has submitted in the Senate, for Senator Hayden, an amendment to be proposed to the third deficiency appropriation bill, proposing an appropriation of $25,000 for expenditure by the United States Public Health Service for an investigation of diseases of man and conditions influencing the propagation and spread thereof among transients in the United States. The amendment would require the Surgeon General of the Public Health Service to report the findings of the investigation to Congress together with recommendations as to the enactment of legislation necessary to prevent and decrease the incidence of such diseases. H. J. Res. 442, introduced by Representative Costello of California, proposes to create a joint congressional committee to formulate a permanent and equitable policy of veterans' benefits and to revise existing laws relating to such benefits. The resolution would authorize the committee, among other things, to investigate the sufficiency of the compensation, hospitalization, domiciliary care and other benefits given to veterans suffering from disabilities directly connected with war service and to investigate the "reasonable presumptions of service connection for certain chronic and constitutional diseases." H. R. 7828 and H. R. 7834, introduced by Representative Hobbs of Alabama, propose to amend, respectively, the United States Employees' Compensation Act and the compensation act for the District of Columbia, so as to bring within their purview employees in the offices of members of Congress. H. R. 7850, introduced by Representative Boren of Oklahoma, proposes to authorize an appropriation of $4,000,000 to assist the several states to control venereal diseases. The money is to be allotted to the several states by the Surgeon General of the United States Public Health Service on the basis of population and financial needs for such control.

Woman's Auxiliary

Pennsylvania

There are forty-seven organized auxiliaries in Pennsylvania. Four auxiliaries are affiliated with other county groups because there are no medical societies in such counties. Most of the county auxiliaries stress medical benevolence and public relations.

Mrs. Wilmer Krusen, president-elect of the Pennsylvania Auxiliary, by virtue of her office is chairman of the group of district councilors. These in turn are advisers to the county auxiliaries and report county activities to the state organization.

The Philadelphia Auxiliary has called attention to the motion picture "Conquering Cancer." The Seventh Annual Health Institute, held recently, included: Address by Dr. Francis Ashley Faught, president, Philadelphia County Medical Society. The Menace of the Common Cold, Dr. J. Allan Bertolet. Syphilis, Dr. John J. Heller Jr. Arthritis, Dr. Ralph Pemberton. Address, Mrs. David W. Thomas, president of the state auxiliary. Posture, Dr. J. Torrance Rugh. Modern Surgery, Dr. Dorothy Case Blechschmidt. Diseases of the Heart, Dr. William D. Stroud. The Menace of Overweight, Dr. Joseph T. Beardwood Jr.

The Lehigh Auxiliary held a social meeting with more than 200 members and guests present. At the Warren County Auxiliary meeting Dr. Jane E. Dunaway spoke on "Hobbies" and an exhibit of members' hobbies was shown.

The Montgomery County Auxiliary has held several social meetings and has assisted the medical society in the decoration and furnishing of its building. Addresses have been given by Dr. Edgar S. Buyers, president of the Montgomery County Medical Society, Dr. Maxwell Lick of Erie, Dr. Frederick J. Bishop of Scranton, and Dr. George C. Yeager of Philadelphia.

Wisconsin

The board meeting of the Woman's Auxiliary to the State Medical Society of Wisconsin was held in Milwaukee recently. Mrs. C. A. Harper, state president, reported that two new county auxiliaries—Washington-Ozaukee and Waupaca—have been organized this year. Mrs. Eben J. Carey spoke on the growth and development of the Wisconsin Auxiliary. Mrs. H. J. Cannon told of the valuable permanent exhibit dealing with pioneer medical history in Wisconsin, which the Woman's Medical Auxiliary has collected and presented to the Historical Museum in Madison and which is being added to continually.

Brown-Kewaunee-Door Auxiliary has secured time on the radio for the presentation of the health programs of the state medical society. These are given at 6:45 each Tuesday, Wednesday and Thursday over station WHBY. The series was inaugurated March 23 and the following subjects have already been discussed: Stuttering; Goiter; Hobbies and Mental Health; Pneumonia; St. Vitus' Dance; At Home with Safety.

The auxiliary has raised funds for St. Mary's Infants' Home and has provided for subscriptions to *Hygeia*, which it places in rural and city schools. At the February meeting Miss Emma Toule gave a report on the conference on the cause and cure of war, which she had attended as a representative of the Green Bay Woman's Council. On St. Patrick's day a social meeting was held, at which Mrs. R. L. McDonald gave a travelogue lecture on Ireland.

Mrs. Eben J. Carey, president of the Milwaukee Auxiliary, has invited the members of all auxiliaries to county medical societies of Wisconsin to attend all meetings of the Milwaukee Auxiliary, which are held on the second Friday in each month. The Milwaukee Auxiliary contributed $135 to the public education program of the medical society and will contribute a further amount for this purpose during the year. The auxiliary has assisted the Visiting Nurses' Association by donating to it a loan closet, which the auxiliary maintains. Members meet regularly each month to sew for the Nurses' Association. The auxiliary has called attention to the national drive being conducted by the American Society for the Control of Cancer, and members have been invited as individuals to assist in this work.

The Marinette-Florence County Auxiliary has given subscriptions for *Hygeia* to the public schools in their counties, and Polk County Auxiliary has placed *Hygeia* in every high school in its county. Members have placed posters concerning the Radio Health Programs of the American Medical Association in each doctor's office, public library and high school in the county.

Medical Economic Abstracts

TEST CASE ON CORPORATE PRACTICE OF MEDICINE

On Feb. 26, 1935, by resolution of the St. Louis Medical Society, the Medicolegal Committee of the St. Louis Medical Society was organized to study and to eradicate the illegal corporate practice in medicine in the city of St. Louis and the state of Missouri, and to employ the necessary professional counsel for this work.

Since that time the committee has made an extensive survey and study of corporations in St. Louis having medical departments. The survey included in general:

1. Questionnaires to 453 industrial mercantile and manufacturing corporations.

2. Two separate questionnaires to the entire membership of the St. Louis Medical Society.

3. Hospitals and clinics sponsored or operated by medical schools and teaching institutions.

4. Hospitals and clinics operated by the city of St. Louis.

5. The practices of insurance companies and members of their staffs.

6. Practices of railroad hospital associations and their staffs by conference with their members, and the study of their yearly reports, constitution and by-laws.

7. Practices of staffs of mutual benefit associations of department stores and other corporations by conferences with the heads of the corporations and with the directors of the benefit associations.

Study of the wealth of material thus collected led to the conclusion that many of these practices were entirely unethical and illegal and contrary to the welfare of the public and the medical profession. The highest courts of the various states where the corporate practice of medicine has been brought to test have quickly recognized that the public interest and the public health in general can best be protected by professional practices of a personal and confidential

nature, which precludes the intervention of a third party whether corporate or individual in such a professional relationship that the stimuli for professional and scientific advancement is much greater where intimate and personal contact between practitioner and patient is maintained; and that the regimentation of the medical profession substituting a name and number on the card index, in place of the close personal attention of the patient's physician, results not only in unfair competition to individual practitioners but most important of all has resulted in the lowering of the standards of medical care provided for the public.

In October 1936 the committee presented a comprehensive thirty page report to the St. Louis Medical Society, and by referendum the society voted 501 to 225 to solicit funds for a test suit in the courts of the state of Missouri on the corporate practice of medicine. There have been numerous decisions by the supreme courts of various states, which have held that a corporation cannot legally practice a learned profession, namely, medicine, law, dentistry and optometry, and it is hoped in Missouri to bring this matter to a test in the Supreme Court of Missouri in the near future to eradicate once and for all this problem, which has been growing and eating at the vitals of the medical profession. The fund is growing and the committee will soon be ready to attack this vexatious problem in the courts of Missouri. The members of the Medicolegal Committee are Drs. Paul R. Nemours, E. J. Helbing, M.D., secretary, and M. J. Bierman, chairman.

NEW ADMINISTRATIVE REGULATIONS OF THE SOCIAL INSURANCE BUREAU IN FRANCE

The original French social insurance law of 1930 was greatly modified in October 1935 and March 1936. In a recent (Jan. 30, 1937) bulletin of the Department of Labor, some important instructions as to the execution of the modified (1935-1936) law are published. The second portion of these instructions to the caisses, or local insurance bureaus, relating to premiums and indemnities for sickness and maternity claims is of considerable interest. The following paragraphs of this portion are the most important:

1. *Delayed Payment of Premiums by Employer.*—The insured, if his share of the joint premium has been regularly deducted by the employer from his wages, is not affected by the failure of the employer to pay the joint (employer and employee) premium when a claim for sickness is made by the insured.

2. *Sickness or Accident Claims.*—If an illness or accident disability lasts over a month, the caisses or disbursing bureaus must reimburse the outlay for medical services which the insured has advanced, every fifteen days at the rate of the daily indemnity allowed for a given illness.

3. *Nature and Origin of the Illness.*—If an insured person is receiving a war pension, he cannot claim indemnity for any illness directly or indirectly related to the war injury or illness. Indemnity is paid only for an illness or injury during a period of six months. There then follows a period of two months during which no indemnity will be paid. The insured is obliged to file a certificate of "apparent cure" at the end of the first six months period. A second period of indemnity for six months can be granted if it can be shown by the insured that his present illness has no etiologic relation to the one for which the first six months indemnity was granted. In cases of an illness that does not necessitate absence from work or requires only preventive treatment, the indemnity can be extended to two years. The daily allowance or indemnity for absence from work begins after the sixth day of such absence and not, as formerly, after the sixth day of certification by the medical attendant, whenever these two dates do not coincide.

4. *Free Choice of Medical Attendant.*—Although the insured theoretically has the right to select his physician, only one physician may be actually chosen, who has agreed to be bound by the terms of a contract between the caisses, or disbursing bureaus of the social insurance organization, and the syndicats, or medical unions, of the respective departments of France.

5. *Privilege to Call Consultants for the Sick Insured.*—If the practitioner deems it necessary to call a consultant, whether or not the latter is a specialist or that an operation is indicated, no indemnity can be granted to the insured unless he shall have signed a blank advising the caisses that the insured will be responsible for extra charges until reimbursed by the caisses. This modification, although still carrying too much "red tape" work, will make the task of the attending physician a little easier. If the case is an urgent one, a notice must be sent to the medical inspector of the caisses by the insured or by the consultants within three days after being called on by the attending physician.

Any pharmaceutical preparation legally authorized to be sold in France can be prescribed, but attention should be given in the direction of maximum economy.

If an insured calls a physician who is obliged to charge for mileage in coming from a neighboring city, the caisses will reimburse the insured only if his condition did not permit leaving his home to visit the physician in another city.

Laboratory analyses, serums or vaccines will not be paid for unless the medical inspector of the caisses considers such outlays indispensable in a given case of illness.

6. *Maternity Insurance.*—As soon as the diagnosis of pregnancy is made and not later than four months before term, the insured must notify the caisses of her condition. She is obliged to attend antepartum and postpartum clinics at regular intervals.

7. *Hospitalization of Social Insured.*—This question had always remained unsettled before the present modified law. There has never been any dispute between the caisses and the insured, if one entered a public hospital, the fee allowed for daily care being about 70 per cent of that calculated as the cost of hospital care of indigents. In the past the insured could also be reimbursed if he preferred to enter a private institution that had made a contract with the caisses. At present the law is a little more liberal, thus giving the insured a more extensive choice of hospitals. The insured person must notify the caisses of having entered a noncontract hospital, and, if the caisses do not protest within eight days, the insured person can claim reimbursement at the daily rate of the noncontract hospital. What the future attitude of the caisses will be toward the question of how much to allow the insured for hospital and medical expenses in a noncontract hospital is still an open question.

8. *Medical Control of the Insured.*—The insured person is obliged to submit to the medical and administrative control of the caisses. A refusal to do so entails cessation of payment of indemnities. The insured has the right to call on his attending physician to be present at any medical control on the part of the caisses.

"SECOND-BEST" MEDICAL SERVICE

The *British Medical Journal* (2:1268 [June 19] 1937) heads a leading editorial as "The Second-Best" and discusses the latest report of the Ministry of Health. Some of the editorial comments throw an interesting sidelight on conditions in British health insurance. The editorial says:

> In regard to ophthalmic benefit for insured persons the Minister, disregarding the opinion of a Royal Commission and two Departmental Committees, has now officially established a method of recognizing medically unqualified persons as fit to deal with eye conditions, involving at least a 35 per cent risk of the most serious consequences to insured persons as a body, whereas there was a professional machinery at his disposal free from that risk. With regard to national health insurance practice in general, he has presented, by both written and verbal evidence, a picture of what he ostensibly regards as a high standard of practice to be accepted under that system, which the general body of practitioners can describe only as greatly understated, both in nature and in scope. Once more, if this ideal of the second-best is to be accepted as that which is expected and paid for, it is to be feared that in many cases it is what may be given, in spite of the fact that most medical practitioners are happily content to fulfil something more than their strict obligations.

WISCONSIN MEDICAL BILLS DEFEATED

At the recent session of the Wisconsin legislature, Representative Biemiller (Progressive Socialist) introduced a veritable battery of bills designed to revolutionize medical practice in Wisconsin. One provided for a system of subsidized physicians, another authorized counties to operate county hospitals providing medical care to all residents, a third changed the method of giving medical care to indigents, another would have established a system of health insurance, and the final one provided for group hospitalization.

The State Medical Society of Wisconsin held a special meeting of the house of delegates to consider these bills and, while recognizing that the objects sought in two of them might possibly be desirable, considered the others harmful to good medical practice. Although the bills had strong backing not only within the state but from organizations in other states, the members of the legislature, after listening to the arguments presented by the representative of the state medical society, rejected all of them. The advocates of the bills, however, have declared this to be only the first battle, and the state medical society has undertaken an investigation of the subjects involved and a campaign of education of the people of the state.

PUBLIC AND PRIVATE RELIEF EXPENDITURES

The Children's Bureau has prepared a report on relief expenditures between 1929 and 1935 which shows that expenditure from public funds for direct relief increased thirty-six times between 1929 and 1935. In 1929 it formed one third of the total expenditure from public and private funds; in 1935, nearly two thirds. In 1929 the expenditure for special allowances from public funds was used almost entirely for mothers' aid and for aid to the blind. In 1935 the expenditure for old age assistance exceeded the amount expended for mothers' aid. More than twice as much was used for aid to the blind as was expended in 1929, and there was an increase of 45 per cent in the expenditure for mothers' aid. Total expenditure for the three forms of special allowance was approximately three times as large in 1935 as in 1929.

Expenditure from private funds for direct and work relief increased between 1929 and 1932 and decreased to about the same extent between 1932 and 1935. The total expenditure from private funds in 1935 was 13 per cent more than in 1929 but 80 per cent less than in the peak year of 1932.

DISTRIBUTION OF MEDICAL SERVICES IN INDIANA

A valuable study of the "Distribution of Physicians in Indiana" by Thurman B. Rice and Paul S. Connell appears in the June issue of the *Journal of the Indiana State Medical Association*. The number of physicians, their average age, and other items are correlated with economic and social conditions in a series of informative maps.

One of these maps is based on an ingenious computation—the population of the county is divided by the product of the active physicians in the community times the average life expectancy of these physicians. "The logic for this computation lies in the fact that the need will be in the direct proportion to the population, and in inverse proportion to the probable aggregate years of practice that the physicians will have as a group." It is felt that while there are "very obvious sources of error," the map based on this computation "should give the doctor looking for a location a great deal of aid."

A comparison of the map showing the average age of practicing physicians and economic conditions shows "that in general those communities which are industrial have attracted the younger men, while rural communities and those in which economic conditions are bad have failed to attract younger men and, as a result, have a high average age. It is interesting to note that the difference in this respect is not as marked as it was five years ago."

Another map attempts "to present to the physician some idea of the roads of the various counties." Other maps show the location and size of all general hospitals, the distribution of sanatoriums for the treatment of tuberculosis, and the "percentage of the physicians who belong to the medical society." It is noticeable that there are a number of counties in which every practicing physician is a member.

A map "made by drawing a circle with a radius representing 7½ miles about each community which had a physician" showed that "it is doubtful if there is any one in Indiana who is farther than 15 miles from a physician."

During the last ten years "there were 1,074 new locations of physicians, as compared with 1,240 deaths."

Another map shows vividly the geographic and educational origin of medical students for the ten years including 1935. "It is interesting to note that while the industrial areas of the state use many physicians, they do not contribute a corresponding proportion of them. On the other hand, the rural sections contribute more than they use. There has been considerable agitation in recent years tending to the reduction of the number of medical students that the medical profession supplied. This is a point that can hardly be settled here, but our study seems to indicate that the profession is not being overcrowded. We must take into consideration, of course, that the population is increasing and that the forms of medical practice are changing in a way that will require more physicians in the future rather than fewer."

Among the conclusions arrived at through the study, are:

> "Several communities, particularly in southern Indiana, will probably be dangerously in need of physicians in the next ten or fifteen years, unless present conditions are corrected.
>
> "Few communities in Indiana are now in serious need of physicians, so far as present need is concerned."

ORGANIZATION SECTION

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CONTENTS

	PAGE		PAGE
GROUP HOSPITALIZATION	17B	MEDICAL LEGISLATION	21B
OWNERSHIP OF PRESCRIPTIONS	19B	MEDICAL ECONOMIC ABSTRACTS	22B
STUDENT NURSES AND SOCIAL SECURITY TAXES	21B		

GROUP HOSPITALIZATION

NOTE.—*This is the eleventh of a series of articles on Group Hospitalization, prepared by the Bureau of Medical Economics of the Association. When completed, the series will be available in reprint form on request at the headquarters of the Association.*—ED.

RATES

The employed person who becomes a member of a group hospitalization plan pays from $7 to $12 annually. The rate varies if the subscriber is a member of a group or an individual. Group rates are usually less. Rates for subscribers also vary according to the type of room accommodations offered. The prevailing rate is usually $9 for semiprivate facilities, with an initial enrolment fee of $1.

Dependents entitled to discounts only are included for a charge of from $1 to $7.80, and dependents entitled to full services for from $10 to $35.40 annually. The variation in the rates depends on the number of dependents included and the type of room accommodation offered. For the average group of four dependents entitled to full services in semiprivate facilities, the annual rate is usually $15. Special family rates, ranging from $12 to $49.20, are also quoted. For the average family of five entitled to full services in semiprivate facilities, the annual rate is about $24.

The subscription dues or premiums may be paid annually or quarterly if payments are made direct. Where payroll deductions are authorized, the payments are collected monthly. About one half of the plans require the prepayment of the annual premium before the subscriber may be hospitalized. Some contracts call for the payment of the annual premium before the patient leaves the hospital. Other plans do not alter the method of payment when the subscriber is hospitalized.

It seems to be rather generally accepted that group hospitalization plans do not reach the very low income groups. A rate of approximately $2 a month apparently has to be charged to offer hospital service contract benefits to the average subscriber and his family. This is a fairly high charge for a wage earner in the low income group and he evidently does not care to subscribe to the plan unless his family is included. The directors of several plans agree that the rates will have to be lowered before persons with small incomes will be able to become members.

The methods used to select a specific rate to be charged are not very enlightening. The rate making for one plan was illustrated as follows:

> A rate of 90 cents a month was arbitrarily determined as the local rate, possibly because 90 cents happened to be a convenient, nice, round, even number, less than $1, yet more than a dime, equally divisible into thirds; two for the hospital, and one for the sales agent.

The determination of the rate to be charged has usually resulted from a process of imitating the rate structures of plans already in existence. What actuarial basis there is for the rates charged consists in adding to the allowed annual cost for one patient day a sum estimated as sufficient to pay the administrative expenses and to create reserves. This is not illogical, provided each member uses only one patient day during the year and provided the administrative expenses and reserves do not exceed the sum apportioned for them. The prevailing annual rate of $9 usually allows $6 for hospitalization costs for each member, and $3 for all administrative expenses and reserves.

MEMBER HOSPITALS

In the present stage of development of hospital insurance plans, the legal relation of member hospitals to hospital service corporations and to subscribing members has not been defi-

nitely fixed. The contract between the hospital service corporation and the member hospitals varies from a simple agreement on the part of the hospitals to hospitalize the subscribers and on the part of the corporation to pay a stipulated per diem rate, to an involved document which seems to make the hospitals directly responsible for the fulfilment of the contract between the hospital service corporation and the subscriber. The single hospitals operating their own plan do assume full responsibility for the subscriber's contract provisions. With the formation of separate hospital service corporations, the question arises as to the liability of the hospitals to provide services even if the funds of the hospital service corporations are insufficient.

The payment arrangements for member hospitals are primarily dependent on the form of organization. If the single hospitals utilize a sales agency, a certain percentage of the income from members is retained by the agency and the other percentage is turned over to the hospital. If the single hospital operates its own plan, the funds are simply considered additional hospital income. Under the association type of plan there are two payment arrangements:

1. A stipulated sum for room and board and specified payments for additional services, based on an adopted fee schedule.
2. An all inclusive flat rate.

The all inclusive flat rate payment method is more popular. These rates, depending on the type of room accommodations offered and the locality, range from $3 to $6 per patient day. Because the first few days of hospitalization are most expensive for the hospital, a graduated payment arrangement of $14 for a one-day stay, $17 for a two-day stay, and $20 for a three-day stay is often adopted.

The member hospitals are usually paid on a monthly basis, but certain restrictive provisions, such as "according to the funds available," "contingent payments as conditions warrant" and "so long as receipts permit" qualify the payment agreements. On the other hand, a certain liberality in the payments to member hospitals is indicated by the payment for services not actually guaranteed in the contract.

The granting of one-fourth discount after the period of twenty-one days is of particular importance to the member hospitals. If no limitation on the period of time or on the services for which discount applies is indicated, serious possibilities for large losses may result. Frequently it is not clear whether the hospital or the hospital service corporation is to assume the cost of the one-fourth discount.

HOSPITALIZATION EXPERIENCE

The measurement of the hospitalization experience, which is a term meaning the numbers of members hospitalized and the number of patient days used, is essential to an appraisal of group hospitalization plans. The expectancy that 10 per cent of the members will be hospitalized during one year for an average stay of ten days each is the basis on which the plan is founded. Is this basis inaccurate or can it be accepted as the actual hospitalization experience of a group hospitalization plan?

There is a noticeable lack of uniformity in the methods used to calculate the number of members hospitalized and the number of patient days used. It would seem that these basic data could be obtained simply by counting the number of patients hospitalized and the patient days used by the members of a plan. Unfortunately, this is not the case. It is first necessary to know the period of time that the members have been entitled to use their contract benefits. It is as important to know the period of time that the plan was exposed to losses as it is to know the actual number of losses. The information that a plan has hospitalized 10 per cent of its members and that each member remained in the hospital an average of ten days is valueless unless the length of time each member has been entitled to hospital service is also known.

The calendar year cannot be used to measure the length of time the members were entitled to benefits, because the number of members may increase and decrease throughout the entire year. It is possible that two plans, each with 5,000 members at the end of a year of operation, may each report 400 members hospitalized and yet the members of the one plan may have been twice as inclined to use their contract benefits as the members of the other plan. The basic unit to measure the period of time for which members are entitled to benefits is the "member month," which represents one month that one member was entitled to the hospital service provided in his contract. Twelve member months constitute one member year.

With the number of member months or member years known, the number of members hospitalized each member month and the number of patient days used each member month can be calculated. Not until the hospitalization experiences of the various plans are expressed in terms of the common denominator, member months, can the hospitalization statistics reported be compared.

The reports on the number of members hospitalized and the patient days used are presented in detail in the complete study. To interpret the hospitalization experiences properly, it is necessary to know the particular features of the contract of each plan. For example, hospitalization experiences vary for group subscribers as compared with individual subscribers, for women subscribers as compared

V 1
193

with men subscribers, for employed subscribers as compared with unemployed subscribers, for subscribers as compared with dependents, for dependents entitled to full services as compared with dependents entitled to partial services, and for adult dependents as compared with children. The contract benefits offered and the limitations imposed also directly influence the number of members hospitalized. The length of time a person has been a member of a plan has an effect on the amount of hospital service that he will require. Even variations in the arrangements for paying the premium result in variations in the use of benefits.

TABLE 1.—*Hospitalization Experiences Under Group Hospitalization Plans.*

Membership Classification	Per Cent Hospitalized	Average Length of Stay in Days
Subscribers entitled to full benefits *	11.2	8.4
Subscribers and dependents entitled to full benefits †	13.1	8.2
Subscribers entitled to full benefits, with dependents entitled to discounts ‡	7.5	6.7
Dependents entitled to discounts §	5.5	6.1
Subscribers and dependents, all reporting plans ¶	11.0	8.2
Subscribers and dependents, standard expected	10.0	10.0

* Based on reports for thirteen groups, equivalent to 60,894 subscribers, over a period of thirteen member months.

† Based on reports for twelve groups, equivalent to 28,803 subscribers and dependents, over a period of nineteen member months.

‡ Based on reports for six groups, equivalent to 25,478 subscribers and dependents, over a period of thirteen member months.

§ Based on reports for five groups, equivalent to 28,128 dependents, over a period of seven member months.

¶ Based on all reports considered as one group, equivalent to 98,995 members, over a period of sixteen member months.

In table 1 is presented a summary of the more pertinent hospitalization experiences. Even within the wide classifications of members shown in the table, large differences appear in the use of the benefits. Considering all reports as one group and ignoring the variations in membership classes and in benefits, it appears that 11 per cent of the members of a group hospitalization plan are hospitalized for a stay of 8.2 days each. This, compared with the expected hospitalization of 10 per cent of the members for ten days each, indicates that the actual experience has been less than expected. Because of the rapid enrolment of members—some plans have increased their membership by over 200 per cent—the present hospitalization experience must be considered as at a minimum. When the present members remain members for several years and it becomes difficult to secure new members in groups large enough to avoid an adverse selection of risks, an increase in the hospitalization experience will be probable. Thus, when the membership reaches a stationary period or begins to decline, the actuarial basis for the plan will require close scrutiny.

(To be continued)

Ownership of Prescriptions

Prepared by the Bureau of Legal Medicine and Legislation

Definitions.—The word "prescription" designates any one of three things:

1. A piece of paper on which is written the name of a drug or the names of several drugs, with instructions for dispensing, or for compounding and dispensing, and for use. In this case the paper and the writing on it constitute the "prescription."

2. Instructions, whether oral or written, for the dispensing, or the compounding and dispensing, of one or more drugs, with instructions as to the use of the drug or mixture dispensed. In this case the term "prescription" covers only the intangible formula and instructions for use.

3. A drug, or a mixture of drugs, dispensed, or compounded and dispensed, pursuant to instructions, whether written or not. In this case the drug or mixture itself is the "prescription."

Ownership of Formula.—The fact that a physician has devised a formula for the preparation, dispensing and use of a medicinal agent gives him no exclusive right to this product of his brain. Unless he patents it, any other person may lawfully use under his own name, or under some fanciful name originated by him, the same formula and instructions, unless the law places some restriction on his so doing, as in the case of narcotics. The weight of opinion is, however, that a person who converts to his own commercial purposes a formula and directions originated by some one else cannot legally dispense it under the name of the originator of it, unless the originator consents.

Ownership of Written Prescription as Determined by Statute.—The right to the custody of the paper containing the written prescription is to a certain extent regulated by statute, either federal or state. In some states the law requires a pharmacist who compounds and dispenses any medicine on a written prescription to keep the paper with the writing on it for a specified number of years. In other states, even though the law does not require the preservation of all written prescriptions, a pharmacist who dispenses certain types of drugs, commonly referred to as narcotic drugs, is required by law to keep the written prescription for a stated time. The Harrison Narcotic Act requires a pharmacist who dispenses, or compounds and dispenses, any of the drugs covered by that act —namely, opium and coca leaves and their

derivatives and compounds—to preserve the prescription for two years from the day on which it is filled. In all such cases the pharmacist is the legal custodian and has a qualified ownership of the written prescription, but he cannot lawfully refill any such prescription.

Ownership of Written Prescription as Determined by Express Contract.—If the pharmacist is not required by law to retain the written prescription he has filled, such custody or qualified ownership may be determined by an express agreement between the purchaser and the pharmacist. If custody or ownership is to be so determined, the agreement should be entered into before the prescription is delivered, accepted and filled by the pharmacist. The prospective purchaser may then, if the pharmacist refuses to enter into such an agreement, take his written prescription from pharmacist to pharmacist until he finds one who will do so. Such an agreement would entitle the customer to the return of the written prescription, unless the law requires the pharmacist to retain custody. On authority of *White* v. *McComb City Drug Co.* (Miss.), 38 So. 739, decided by the Supreme Court of Mississippi in 1905, one might go even further, for in that case the court held that an apothecary who refused to deliver medicine called for by a prescription, which he had already compounded, because the customer could not or would not comply with the pharmacist's terms for payment, had no right to retain in his possession the written prescription after the customer had demanded its return.

Ownership of Written Prescription as Determined by Implied Contract.—When the right of custody or the ownership of a written prescription is not determined by law or by express agreement, as already described, it is determined by the custom prevailing in the community. If in any given community, over a reasonable period of time, it has been universal or nearly so for every one who has a written prescription filled to leave that prescription with the pharmacist who filled it, it is to be presumed in any case that the purchaser and the pharmacist agree to abide by that custom, unless, before the drug is dispensed, notice of a contrary desire is given by the purchaser and expressly or impliedly acquiesced in by the pharmacist. If a contrary custom prevails in the community, custody or ownership will be presumed to be in accordance with it.

Ownership of Drugs Dispensed on Prescription.—With respect to the ownership of the medicine actually dispensed, or compounded and dispensed, in accordance with the terms of a prescription, oral or written, little need be said. The medicine obviously passes into the ownership of the purchaser when it is delivered by the pharmacist to him. He alone is then responsible for its use. If the medicine does not include ingredients the sale or dispensing of which is regulated by statute, he is at liberty to use the medicine or dispose of it by gift or sale if he so desires.

Copies of Written Prescriptions.—In the absence of a statute or of a general custom entitling a customer to demand of a pharmacist who has filled a written prescription that the pharmacist supply the customer with a copy of it, and in the absence of any prior understanding between the pharmacist and the customer before the filling of the prescription that the pharmacist will furnish the customer with a copy of it, the customer has no legal right to require a pharmacist to do so. A general custom prevailing in a community over a considerable period of time, whereby pharmacists have ordinarily furnished to customers, on request, copies of prescriptions that the pharmacists have filled, might be regarded as sufficient to imply a legal obligation on the pharmacist to comply with that custom in a given case, unless he has given notice before he fills the prescription that he will not do so.

A pharmacist probably has no right to give copies of a prescription to any one other than the original purchaser and the prescribing physician, except to a duly authorized officer of the law, but no statute, regulation or court decision has been found to support this idea. If, however, in giving out a copy of a prescription to a person not entitled to it the pharmacist discloses the fact that the patient for whose use the prescription was written is suffering from a disorder or injury hurtful to him socially or in his business, the offending pharmacist may possibly be held accountable.

Refilling Prescriptions.—A customer cannot as a matter of right require a pharmacist to refill a prescription. If a pharmacist refills a prescription, whether for the original purchaser or for any one else, without express authority from the prescribing physician, the pharmacist does so on his own responsibility and at his own peril. The transaction so far as the physician is concerned is complete when the pharmacist delivers to the patient or his agent the quantity of medicine called for by the prescription, compounded in accordance therewith. With the unauthorized sale of any larger quantity than is called for by the prescription, the physician has nothing to do.

Court Decisions.—Decisions by courts of last resort and of the important intermediate appellate courts, pertaining to the ownership of written prescriptions and of formulas devised by physicians, are not numerous. *White* v. *McComb City Drug Store* (Miss.), 37 So. 737, has already been discussed. In *R. C. Stuart*

Drug Co. v. *Hirsch* (Texas), 50 S. W. 583, the Circuit Court of Appeals of Texas, in 1899, decided in effect that the custody of prescriptions and the right to use them after they had once been filled vested in the pharmacist who had filled them, but that in the sale of pharmacies the prescription files usually went with the good will of the business, and not with the stock of merchandise. No other pertinent court decisions have been found.

Student Nurses and Social Security Taxes

Prepared by the Bureau of Legal Medicine and Legislation

Student nurses in "privately owned and operated hospitals," even though their compensation consists solely of board, lodging, uniform and laundry furnished by the hospitals that they serve, are "employees" within the meaning of the titles of the Social Security Act relating to old age and unemployment benefits, according to a recent ruling of the Bureau of Internal Revenue. Such nurses are therefore entitled to benefits of the act and subject, as are their employers, to the taxes imposed by it. The amount of the taxes to which such nurses and their employers, the hospitals, are subject is determinable on the basis of the cash salaries paid, if any, and the reasonable cash value of any perquisites to which the nurses are entitled.

The titles of the Social Security Act providing for old age and unemployment benefits, however, exempt from taxation compensation for services performed in the employ of a corporation or association organized and operated exclusively for charitable purposes, no part of the net earnings of which inures to the benefit of any private shareholder or individual. Student nurses and other employees of a hospital owned and operated by a corporation or association that has established its right under the act to exemption as a charitable institution are therefore not subject to the taxes imposed by the act nor are they entitled to its benefits. A hospital owned and operated by a corporation or association and claiming exemption from taxation for itself and its employees, under the Social Security Act, because of the charitable, nonprofit making character of its activities, should establish its tax-exempt status officially as a matter of record in the Bureau of Internal Revenue. To that end it should make application, if it has not already done so, to the collector of internal revenue for the collection district in which the hospital is located, asking for official classification as a tax-exempt corporation or association. Details as to procedure can best be learned by conference with the collector to whom application is to be made.

109
937

Medical Legislation

Medical Bills in Congress

Changes in Status.—S. 1567 and H. R. 7494 have been reported, respectively, to the Senate and House, proposing, among other things, that helium not needed for government use may be produced by the government and sold, under regulations approved by the President, for medical, scientific and commercial use. S. 2463 has been reported, with amendment, to the House proposing (1) that there shall be four assistants to the Surgeon General of the Army with the rank of brigadier general, one of whom shall be an officer in the Dental Corps; (2) to provide 100 additional officers of the Medical Corps of the Army and fifty additional officers of the Dental Corps, and (3) to provide that service as Contract Dental Surgeons and Acting Dental Surgeons shall be credited to officers of the Dental Corps for purposes of retirement.

Bills Introduced.—S. J. Res. 188, introduced by Senator Lewis, Illinois, proposes to provide that all physicians and surgeons who practice medicine or surgery in the United States or in its territories shall be civil officers of the United States and as such subject to fine and imprisonment if they fail to render medical or surgical aid when so requested by any impoverished individual who is in need of such aid, and if they fail, when necessary, to order the hospitalization of any such individual. The bill provides that any hospital to which such an order is directed shall, so far as its facilities permit, provide for the hospitalization and care of any such individual in the manner best adapted to accomplish his recovery. The bill contemplates that the costs for rendering such aid to impoverished individuals shall be paid by the Social Security Board. S. 2867, introduced by Senator Sheppard, and H. R. 8066, introduced by Representative Sumners, both of Texas, propose to exempt student nurses regularly enrolled in nurses' training schools chartered or approved pursuant to state law from the taxing provisions of the Social Security Act and to deny to such nurses the unemployment and old-age benefits contemplated by the act. H. J. Res. 468, introduced by Representative Rogers, Massachusetts, proposes to authorize the President to set apart the month of April of each year as Cancer Control Month and to invite the medical profession, the press, and other agencies and individuals interested in a national program for the control of cancer to unite during that month in a public dedication to such a program. H. R. 8005, introduced by Representative Dockweiler, California, proposes to provide that retired personnel of the Army, the Navy and the Fleet Naval Reserve, the Marine Corps and the Fleet Marine Corps Reserve, and the Coast Guard requiring hospitalization shall be entitled to enter any Army or Navy Hospital, under the same conditions for maintenance charges as are now, or which hereafter may be, fixed for the active service.

Medical Economic Abstracts

TRYING TO MAKE SICKNESS INSURANCE POPULAR

An International Congress of Social Insurance Officials, which met in Dresden Sept. 4-8, 1936, devoted its attention for an entire day to the problem of how to make sickness insurance popular. The report, as it appears in the *Deutsches Ärzteblatt*, Oct. 31, 1936, pp. 1080-1081, starts with the statement of the first speaker that "the popularity of social insurance at present leaves much to be desired."

Among the proposals that were suggested to gain popular sympathy for sickness insurance in the countries where it has already existed for many years were lectures, moving pictures and leaflets. It was also urged that the insured be given more influence in the administration, and that the amount of red tape necessary to secure benefits be reduced.

It is claimed that a "universal cause of objection was found in the objection of the mass of the laborers to saving and provision for the future." To offset this it was suggested that some form of saving be arranged so that the healthy as well as the sick would obtain some benefits from their contributions. It was urged that administrators be more accommodating and personal in their relations with the insured and take an interest in their troubles. Another speaker suggested that insurance should extend its functions into more general welfare activities, stating that "the more complicated the economic organization of a people is, the greater is the need of the people, within certain limits, for governmental protection."

The significant factor would seem to be that the administrators of sickness insurance from so many countries were agreed that sickness insurance is not popular with the mass of people and that there is need of propaganda in order to increase this popularity.

A SAMPLE FROM GERMAN SICKNESS INSURANCE

Dr. H. O. Schmid of Heidelberg describes the workings of the Ortskrankenkasse (local insurance society), of which he is one of the supervising or confidential physicians (Vertrauensärzte), in the *Deutsches Ärzteblatt* **67**: 584 (June) 1937. This society covers several districts and has 42,000 members, including some voluntary insured. Eighty-two persons are employed in the administration; there are two full-time and two part-time Vertrauensärzte. Within the territory covered by the society, ninety-two general practitioners and twenty-five specialists have been admitted to insurance practice; twenty-one clinics, hospitals and sanatoriums are also utilized. The membership is mainly composed of industrial workers, although there are some agricultural districts included.

The average monthly income of the members is a little less than 100 reichsmarks (about $40); contributions are correspondingly low—so much so that the contributions from the unemployed are sometimes higher than the contributions from the small wages received by many of the members. The restricted resources make it difficult to grant orthopedic care to children and also force economy in other forms of specialist services. The work of the Vertrauensärztes in determining incapacity to work is rendered difficult, especially in cases of "nervous exhaustion" and in the convalescent stage of grip, of which there was an epidemic during the past winter.

Of the 42,000 members, 4,668 received 90,492 days of hospitalization during the year. The average period of hospitalization was 19.4 days. (It may be noted that this is a higher percentage of members hospitalized and a much longer period of hospitalization than is expected in plans of group hospitalization in this country.) There was an average of 22.3 days of incapacity for labor for each sickness.

MILWAUKEE COUNTY'S MEDICAL RELIEF PROGRAM

Prior to three years ago, when the program which is described in material forwarded by the secretary of the Medical Society of Milwaukee County was put into effect, the county physician system was in use. Under the Federal Emergency Relief Administration the local and state medical societies took up with the local relief administrator, who cooperated sympathetically, the question of abolishing salaried county physicians and substituting a plan that would permit free choice of physicians among all those licensed to practice who were willing to accept the prescribed conditions. The system applied only to home calls, as ambulance patients were required to go to the county dispensary, and hospitalization was given in the County General Hospital.

Physicians who wished to cooperate were asked to sign a pledge to respond personally to all calls and, if this was not possible, to give immediate notice to the proper authorities. They also agreed to accept the schedule of allowances. This schedule provided that care in acute illnesses should be limited to ten visits, with a maximum compensation of $15. Chronic illnesses were limited usually to one visit a week for a period not exceeding two months. Authorization for antepartum and obstetric care was given when it was felt that home delivery would not involve undue risk. Day house calls were to be $1.50, night house calls $2.50, and obstetric cases $20.

Twenty-four hour telephone service, maintained for some years by the medical society through its Physician's Service Bureau, made possible prompt action on all calls.

Of a membership of 690, 235 signed the agreement at once, and during the three years approximately 650 physicians have participated in the relief program.

All bills are reviewed by three members of the Milwaukee Medical Society appointed by the local federal relief administrator. This Medical Advisory Committee has not hesitated to insist on strict conformance to the regulations; this created some friction at the beginning, but all matters now seem to have been satisfactorily adjusted. Replies to an inquiry sent to the participating physicians showed that 95 per cent approved of the plan.

There were some abuses on the part of patients who called physicians when they were capable of going to dispensaries or were not in need of medical attention.

During the first two years the bureau handled 78,756 calls for physicians. As the relief load lessened and the Federal Emergency Relief Administration funds were reduced, the rotating list was discontinued July 1, 1936, and county physicians were again employed to care for those persons who had no choice of physician. Those who had a choice of doctor were handled as before. It now appears that this program will be continued indefinitely, although there is no written agreement between the county and the medical society.

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CONTENTS

	PAGE		PAGE
IS THERE A "MEDICAL LAG"?	23B	GROUP HOSPITALIZATION	25B
WHY PAY A FEE?	23B	MEDICAL ECONOMIC ABSTRACTS	28B

Is There a "Medical Lag"?

Advocates of new schemes of medical service charge that the medical profession is responsible for a "social lag" in medicine. Since many European nations have long had systems of state medicine or sickness insurance, it is urged that these nations are leading a procession of medical-social advances, with the United States in the rear guard. The charge is obviously based on the assumption that the production and distribution of medical service by mass methods is an advance over individual, personal service. Is the fight made by American medicine against contract and club practice a sign of lethargy or alertness? In European countries these systems created such an unendurable medical condition that any sort of change was welcomed as an improvement. American medicine has attained leadership in education, equipment and quality of medical service for the majority of the people. In no other country has the medical profession been so successful in guarding the quality of drugs and medical appliances, maintaining standards of education and (measured by morbidity and mortality statistics) safeguarding the health of the people as in the United States. In no other country has the medical profession undertaken anything comparable to the extensive studies of medical conditions and the numerous and varied experiments in the distribution of medical service that are now proceeding here. Because organized medicine does not hail each new social experiment or proposal in the distribution of medical care as a panacea but admits failures and seeks to perfect partial successes before urging universal adoption, the profession is charged with responsibility for a "social lag." Science demands evidence; such charges are worthless unless they are supported by adequate proof.

Why Pay a Fee?

A Statement by the Bureau of Medical Economics

The payment of a fee by physicians for a listing of their names in an insurance medical directory has been condemned as unethical by the following action of the Judicial Council:

> The Judicial Council is of the opinion that most, if not all, of the directories, described in the resolutions condemning as unethical the listing of physicians by specialty in directories published by commercial concerns . . . are but subtle ways of avoiding the pronouncement of the Principles of Medical Ethics concerning solicitation of patients, under a guise of buying a directory when the real intent is the purchase of the publication of the buyer's name in the directory for the purpose of obtaining patients.

The resolution which called for this action by the Judicial Council was adopted by the House of Delegates not only because the listing of physicians' names in insurance medical directories constitutes indirect solicitation of patients but also because such directories mainly serve the profits of the publishers and are of little benefit to physicians or to insurance companies.[1]

If the reasons prompting the adoption of the resolution cannot be denied, the publishers of insurance medical directories should be shamed out of business. To collect fees from physicians for a listing of their names in a directory on the promise of lucrative practices as examiners for insurance companies and to urge insurance companies to use such lists on the promise that the physicians so listed are particularly qualified

1. Medical Directories, J. A. M. A. 108:25B (Jan. 23) 1937.

for insurance examination services is unforgivable if both promises prove false.

Letters were sent to 220 insurance companies located throughout the United States and Canada and representing all types—casualty, life, and health and accident—as well as large and small companies. Two simple questions were asked:

1. What medical directories are used in your office to assist in selecting physicians for the medical services required by your company?
2. To what extent are insurance medical directories used by the medical department or the claim department and adjusters as a source of information in selecting physicians?

Only five of the 118 companies which replied could be considered as making any use of the privately published insurance medical directories. These replies are quoted to illustrate that they are not enthusiastic recommendations:

We have, in the past, had some physicians' directories here in our office, but I could not say where they are located at the present time, and, furthermore, I don't think that we ever used them for selecting a physician in any part of the country.

Will say we do have two or three copies of medical directories in our files. However, it is the custom of our Company to allow each Claimant and Policyholder to choose and use his own Physician or Surgeon.

Occasionally I refer to insurance medical directories. *Not very often.*

For the State of Iowa we sometimes use a directory supposed to be published by various insurance companies with their rating of the examiner.

We were furnished gratis some time ago one of the insurance medical directories. We have referred to this from time to time but we have not found it very helpful.

A few other companies report the receipt of insurance medical directories but do not make very definite use of them, as indicated by the following:

From time to time we receive medical directories from the so-called . . . Bureau, Inc. of . . . but they usually find their way to the wastebasket in less time than it takes to unwrap them.

The only insurance medical directory which I recall having received is that published by the . . . Medical Directory, Inc. of . . ., and that has come to me gratis, but I do not recall a single instance where it has been used for the purpose of selecting a physician as medical examiner.

It is a practice for the publishing company to send the insurance medical directory gratis to insurance companies. Sometimes the acknowledging letters are published as evidence of the use of such directories. However, from the replies received it appears that insurance companies actually make little use of these directories.

It is of interest that four of the five companies which use insurance medical directories at all also make use of the American Medical Directory. In fact, practically all of the replies —113 out of 118—volunteered the information that the American Medical Directory was the primary reference source in selecting qualified examiners. The following indicate the nature of these replies:

Medical Department depends entirely on the information obtained in the American Medical Directory plus the usual inspection reports and reports of other physicians in the locality as to the man's standing.

We use the American Medical Directory to a great extent for appointing examiners in the Medical Department. We also use it as a reference in our Claim Department.

Whenever we wish to use a Doctor we always refer to the American Medical Directory to obtain an Examiner's name.

Rely to large extent on American Medical Directory in our selection of examiners.

Our selection is based almost entirely upon the information in the American Medical Directory when selecting or appointing our examiners.

We use the American Medical Directory for the purpose of securing medical examiners in connection with any particular claim we are handling in any locality where at the present time we do not have a regular examiner.

We limit our investigation of doctors, as far as directories are concerned, to the American Medical Directory, which we have used for many years and will continue to use.

By far the greater majority of all the companies are subscribers to and use the very latest edition of the American Medical Directory. Furthermore, the replies from the companies which are not subscribers indicate that no directories are used. In view of the almost unanimous use and approval of the American Medical Directory by insurance companies, it is reasonable to conclude that the American Medical Directory is *the* reference source for the selection or appointment of physicians.

Most of the 102 companies not replying are small companies and of these over half are subscribers to the American Medical Directory. It is not believed that additional replies would greatly alter the preponderance of evidence that insurance medical directories are of little consequence in the selection of examiners. In fact, an air of hostility toward privately published medical directories appeared in several replies:

In checking the names of physicians appearing in certain so-called insurance medical directories with the American Medical Directory, I came to the conclusion that the doctors so recommended as especially qualified for insurance examiners were not in my judgment so qualified.

We all know the nature and the source of the names in these directories. Although oftentimes names do creep into these directories of competent and reputable men, as a source of reliable information they are worthless.

We have contended that these special directories were of little value since they only include those doctors who were willing to pay a fee to have their name printed.

The physician who pays to place his name in an insurance medical directory is in the same category as a physician who buys an insurance

V 10
1937

policy on the promise of an appointment as an examiner for the company. He is usually out of pocket, because the promised examination fees do not materialize. Reputable insurance companies are not influenced in the selection of their examiners by the fact that a physician purchases a policy from the company. Neither are they influenced by directories which purport to list only "qualified" examiners.

Some concerns do not issue directories but maintain reference bureaus or advisory bureaus where information concerning a physician is filed for confidential reports to insurance companies. However, the nature of their services is, for all practical purposes, similar to that of companies which publish a directory. Since the data are compiled, as was stated by one bureau, for the "exclusive use of more than 800 progressive insurance carriers," it does seem that the insurance companies should pay for the information that is received and not the physician. This is true even if the fee "barely offsets the costs to the Bureau of examination, investigation, and recording of the applicant's qualifications."

If there is a physician who is not convinced that the payment of a $10 to $75 fee for the furnishing of personal information to concerns which publish insurance medical directories or operate reference bureaus is a poor investment, let him suggest to the next directory salesman that he will pay the required fee with the first money received from patients referred to him by reason of the directory listing. One physician stopped a directory salesman's pleas by offering to give him 10 per cent of all collections from patients obtained as a result of the company's effort, persuasion or directory.

The physicians in the United States and Canada will save money when they realize that they receive small value in return for the fees charged them to include their names in an insurance medical directory or in the files of a reference bureau. Not only is it strangely out of place for the physician to pay to furnish the information that is of value to such concerns, but, in addition, the promised services are not used by insurance companies. The American Medical Directory, the lists of certified specialists published by the American Medical Association, the directories published by state and county medical societies, the Year Book of the American College of Surgeons, the list of special examiners approved by the Insurance Medical Directors Association, the lists published by state boards of medical examiners, and similar bona fide directories adequately fulfil the needs of insurance companies for directories of physicians. Physicians are not charged a fee for the listing of their names in these directories, which are purchased by insurance companies for their medical and claim departments. On the other hand, privately published insurance medical directories cost the insurance companies nothing and they are apparently worth just that.

Group Hospitalization

NOTE.—This is the twelfth of a series of articles on Group Hospitalization, prepared by the Bureau of Medical Economics of the Association. When completed, the series will be available in reprint form on request at the headquarters of the Association.—ED.

Compared with the hospitalization of 6 per cent of the persons in the general population for all illnesses, the hospitalization of members of group hospitalization plans is tending to be excessive. It is significant that certain types of subscribers have high hospitalization records. Those persons who are brought into contact with the care of sick persons (nurses, hospital employees, physicians and employees of physicians) tend to want to be hospitalized themselves. Even allowing for the occupational hazards, such groups are unusually "hospital minded," because they demand an excessive amount of hospital service. Similarly, those persons who have leisure time (teachers, housewives, dependents and unemployed) are also inclined to spend their free time in the hospital. Consistently higher hospitalization rates are reported for women than for men. Individual subscribers and those subscribers joining in small groups who make their payments direct to the hospital service corporation are more inclined to use the benefit of their contract than subscribers enrolled in payroll deduction groups.

These facts indicate the germ of developments, such as already have taken definite shape in foreign countries under sickness insurance. The tendency for the insured persons to want to "get something back" for their money has been emphasized with regard to sickness insurance in foreign countries. It was not commonly believed that the American people would run to physicians' offices or to hospitals unless they were really sick. The hospital experiences under group hospitalization plans, however, seem to indicate that the same inclination toward "bagatelle" ailments exists in the United States.

It was reported for one large plan that the subscribers were stricken with the desire "to spend the week end in a hospital." A sharp increase in the number of persons hospitalized over week ends was noticed. The adminis-

trators in charge stated that the hospital stays were not for recreation but that the members presented themselves during the week end to avoid conflict with business hours and because of the increase in sickness and accidents during the Saturday and Sunday holidays. One newspaper, in commenting on the situation, stated:

> The fact remains, however, that "illnesses" which are amenable to elective week-end treatment are hardly to be considered of importance from the standpoint of public health. Moreover, a complaint which does not interfere with business and which can be cured or even completely studied in forty-eight hours surely does not require hospitalization, not denying the undoubted curative value of bed-rest alone.

Another plan was forced to raise its rates for teacher groups because they were inclined to take "rest cures" during the summer vacations.

It is perhaps true that the hospitalization of persons when they so desire is of some benefit. The rest in the hospital with proper food may permit the alleviation of many minor ailments. Unfortunately, such hospitalization does not result in an improvement in the general health of the public. It has been fairly conclusively shown that the medical systems which emphasize the treatment of thousands of minor ailments without affording adequate prevention or diagnoses do not result in a decrease in the morbidity and mortality rates.[32] Encouragement of hospitalization for minor ailments can be countenanced only if the result is a betterment of the public health. If such a betterment does not occur, serious consideration must be given to the possibility of a breakdown of the patient's will to get well. Also, since encouragement of hospitalization of minor ailments may not necessarily result in an increase in the prevention of disease or in the discovery of incipient diseases, there is a likelihood that hospitals will become so cluttered with insignificant ailments that real medical and hospital services will suffer.

The administrators of group hospitalization plans specify that patients may be admitted only on the recommendation of a licensed physician. It is held, therefore, that the physician will be the one to judge whether a patient's condition is serious enough for hospitalization. When the demand on the part of the subscribers to get something for their money grows, it becomes a force that cannot be easily resisted. The individual physician faced with a patient who has a group hospitalization membership card which allows free hospital services may not be able to refuse that patient hospitalization for some minor ailment. If he does, the patient will find another physician who will certify to the necessity for hospitalization.

32. Influence of Sickness Insurance on Diphtheria Morbidity and Mortality, J. A. M. A. 104:1335 (April 13) 1935. Tuberculosis and Insurance, ibid. 104:1423 (April 30) 1935. Les assurances sociales et la mortalité, presse méd. 45:242 (Feb. 13) 1937.

The inclination of members to be hospitalized, particularly for minor conditions, leads to interesting possibilities. The number of days spent by the general population in bed each year on account of illness, at home and in the hospital, is reported to be 3.4 days per person. Less than one of these days is now spent in the hospital. Will the plan encourage the spending of additional days in the hospital? If additional days are added to the number now spent in the hospital, what will become of the plan with its financial structure based on an expectancy of one day in the hospital per member? Although the plans limit the members accepted, do not hospitalize many conditions and diseases, and impose restrictions on practically all benefits, the tendency toward excessive hospitalization cannot be denied. There has already been a noticeable increase in the number of limitations in hospital service contracts. A comparison of the first group hospitalization contracts with the later contracts issued by hospital service corporations reveals the growing importance of provisions restricting the benefits offered. Requiring the subscriber to pay for the first few days of hospital service, placing further limitations on the hospitalization of obstetric patients, restricting the benefits for dependents, and insisting on the enrolment of a large percentage of each group with payments through payroll deductions are indicative of the devices used to eliminate as many unfavorable risks as possible. It remains to be seen whether these or other devices will be able to stem the tide of increasing use of hospital benefits by members of group hospitalization plans.

FINANCIAL EXPERIENCE

According to the financial experiences reported, it appears that from 24 to 119 per cent of the earned income, with an average of about 65 per cent, is used for hospitalization costs. Administrative expenses, including promotional and sales expenses, range from 135 per cent down to a low of 12 per cent of the earned income, with an average of about 25 per cent. The highly experimental and varying nature of the plans renders uncertain the conclusions concerning financial experiences. The larger and better managed plans, which have kept administrative and promotional costs at a minimum and which have selected subscribers very conservatively, do accumulate actual surpluses. Losses are usually incurred during the first year or so, and then administrative costs are lowered and a surplus may appear. Although hospitalization costs remain constant or tend to increase, the rapid enrolment of members prevents the actual hospitalization that may be expected in later years. During the present period of rapid membership growth,

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1937

a low loss ratio should be expected. When members are increasing at a rate of over 100 per cent annually, it would be unwise to accept the resulting costs as representative of normal, long-time operations.

Up to 1936 most of the plans suffered losses. During the year 1936 the plans received wide publicity and the membership increased rapidly, with the result that many were able to show surpluses. However, the reserves that have been accumulated do not appear to be adequate. A reserve of $5 per member is considered a conservative amount to provide for outstanding losses and catastrophes. Even among the better managed plans the reserves are less than $2 per member. The current attitude among executives of hospital insurance plans is that reserves are unnecessary, although reserves are an integral part of insurance.

Since it is expected that each member will require one hospitalization during ten years, the income from each member during the ten year period must be sufficient to meet the costs of one hospitalization. The actual income per member is about $8 annually, so that $80 is the income to provide for the one hospitalization, which, as reported, costs about $50. The difference of about $30 is used for expenses other than hospitalization cost and for reserves. The payment of $30 for the expenses and the creation of reserves under group hospitalization plans to administer a probable $50 loss is questionable economy. It is also apparent that the addition of administrative expense to hospital charges cannot lower the cost of hospital care. Insurance never lowers costs; it simply distributes the costs for one person among a group of persons. In keeping with the charitable nature of hospitals, any plan to assist persons to meet their hospital bills should be designed for those really needing help, and as little as possible of the moneys collected should be used for administrative expenses.

It is questionable whether an insurance plan for the payment of hospital bills, exclusive of physicians' services, is desirable because of the small losses involved. The Committee on the Costs of Medical Care recognized that hospital insurance, even if it included medical as well as hospital charges, could not be considered as a solution to the problem of the uneven distribution of medical charges. The chief advantage of such a plan is that it facilitates the payment of hospital bills by enabling each prospective patient to pay in advance. The underlying feature of the group hospitalization plan is that it is a *collection plan*, collecting hospital bills in advance instead of after they have accrued.

Participating hospitals receive from $3 to $6 for each patient day of services rendered. It cannot be exactly determined whether these amounts fully reimburse the hospitals for the expenses incurred in providing the benefits specified in the contract. Apparently the superintendents of the participating hospitals are well satisfied with the rates paid because the plan provides immediate cash payments and lowers collection costs.

EVALUATION

It does not appear that group hospitalization plans can solve the problem of idle hospital beds. The membership required and the number of new patients who would have to be hospitalized to fill the existing idle beds appear to be far beyond the possible development of the plans. Unless rates can be lowered to permit the enrolment of a great number of persons with small incomes who have hitherto not been able to pay for hospital care, group hospitalization plans will have no appreciable effect on hospital finances.

A more direct solution to the hospital problem of idle beds and free patients than seems possible under group hospitalization plans could be accomplished by avoiding unnecessary expense for idle beds, by establishing a hospital routing plan to prevent the abuse of free services, by organizing a medical service bureau postpayment plan to provide deserving patients with low-cost medical and hospital services under an equitable payment arrangement, by obtaining community philanthropic or governmental funds for the care of the patients unable to pay and by encouraging economical and efficient methods of administration. The development of organized care of the sick in their homes and the provision of low-cost beds for convalescent patients will also do much to lessen the expense of hospitalized illnesses.

RELATION TO MEDICAL PRACTICE

Regardless of financial considerations, the effect on medical practice in hospitals by the inclusion of medical services in group hospitalization contracts is the main concern of the medical profession. Medical services are certainly included in group hospitalization contracts when roentgen and radium treatments, radiologic services, outpatient treatments, anesthesia and pathologic examinations are offered by many plans. The inclusion of the professional services of anesthetists, pathologists and radiologists in the contract for the sale of hospital facilities has caused the medical profession to question the propriety of such a policy. The inclusion of the services of physicians as a benefit in a contract to be sold to persons who have the services of other physicians available has always been held injurious to the practice of medicine and to the public health.

The direct offering of "services" by these contracts accentuates and perpetuates many

undesirable conditions of medical practice in hospitals. Some of these are the solicitation of patients, the entrenchment of the nurse anesthetist, the placing of more and more of the practice of radiology in the hands of incompletely trained lay technicians, and the forcing of pathology from its rightful position in the practice of clinical medicine.

The present high plane of medical practice is largely the result of constant supervision of that practice by organized societies of physicians. When professional control of the practice of medicine is destroyed, the consequence is an impersonal, perfunctory medical service. The selling of medical services by a corporation or by a group of lay persons substitutes commercial standards of service for the principles of medical ethics. When physicians become employees and permit their services to be peddled as commodities, the medical services deteriorate and the public which purchases such services is injured. It is for this reason that physicians object to the selling of their services by hospital service corporations.

To disavow clearly any desire to interfere with the practice of medicine, every group hospitalization plan should specify in its contract that the hospital services offered include only bed and board in the designated room accommodation, the use of the operating room and the delivery room, surgical dressings and ordinary medications. Likewise, the contract should specify that anesthesia, all radiologic services, every service that is rendered in the pathology department and any other service that can be construed as professional are *not* included.

(To be continued)

Medical Economic Abstracts

MEDICAL SERVICE IN SOUTH DAKOTA

A typewritten report of the Public Health Committee of the South Dakota State Planning Board undertakes to analyze the situation with regard to medical care in that state. It finds five counties in which there is no physician and some others in which it considers the ratio of physicians to population too low to afford adequate service. To meet this situation it recommends that "Physicians, dentists and nurses should be subsidized to provide adequate medical care, either through the Boards of County Commissioners or through some Federal relief set-up."

The committee also concludes that there is too great a tendency toward specialization. Its calculations include as specialists all those who have classified

Incomes of Physicians in South Dakota

Gross Income of Physicians	Percentage of Physicians Earning That Income
Income less than overhead	8
From $ 1 to $ 500	12
From 500 to 1,000	15
From 1,000 to 2,000	15
From 2,000 to 3,000	24
From 3,000 to 4,000	6
From 4,000 to 5,000	9
From 5,000 to 10,000	10
From 10,000 to 15,000	1

themselves either as specialists or as partial specialists. Even with this classification but 26 per cent of the physicians are in the specialist category, which is less than the average based on the same classification in other countries or in other parts of the United States.

A questionnaire as to incomes, which was answered by almost 30 per cent of the physicians in the state, leads to the conclusion that "The large majority of our physicians are not making a living and some are in actual want." The actual figures as to income arrived at by the committee are summed up in the accompanying table.

It is recognized that "This is no doubt due to the fact that a large number of our physicians are located in the drought-stricken area, an area which for the past four years has not been self supporting . . . the low income of the majority of our physicians is due to the prevailing economic situation and not to decreased amount of work."

The committee recommends "the setting up of a state-wide cooperative of medical care for the families of the clients on WPA and Resettlement for the period of the emergency. Into this cooperative the members will pay a small monthly premium of $1.50 or $1.75 for which they and their families will receive medical care from the physician they choose to call. The physician will be paid according to a prescribed fee schedule from a central office having charge of the collection and distribution of funds. This office will be managed by an M.D. Any licensed practicing physician in the state of South Dakota will be eligible to render medical service under this set-up. It will not break down the much desired family-doctor relationship and it will distribute cash income among the physicians in an equitable manner." The committee does not seem to be familiar with the numerous investigations that have shown that any such sum will be totally insufficient to provide good medical service and pay the physician any more than their statistics have shown he receives at the present time.

PHYSICIANS REFUSE TO FILL OUT SOCIAL INSURANCE BLANKS

The Paris *Soir*, the evening journal with the largest circulation in Paris, made public, August 1, some facts about paper work in social insurance. There are eighty-six departments or counties in France and the one which forms an incomplete circle around that in which Paris is situated is the department of the Seine-et-Oise. The enforcement, July 1, of the new social insurance regulations has entailed such an amount of paper work by practitioners that 570 of them have decided, after having made a protest to the prefect (governor) of the department of the Seine-et-Oise, to refuse to fill out any more blanks when they are called to attend indigents covered by social insurance. The practitioners state that it takes fourteen minutes to fill out all the various certificates which the caisses, or disbursing offices, require before the examination of the patient can be begun. During the first part of July the protesting practitioners treated indigents gratuitously, giving them prescriptions written on ordinary paper instead of the blanks which the caisses insist on. The indigent sick cannot have these prescriptions filled because the druggists will not be paid by the caisses unless the prescription is written on

official blanks. The mayors of smaller communities have the right to make such prescriptions legal in emergency cases, but if they do this it is the local treasury which must pay, instead of the caisses; hence this privilege is rarely made use of. Practitioners say that they have no end of trouble in having their bills paid by the caisses for the care of indigent social insured workers, and before being paid it is necessary to send in voluminous reports on each patient. Bills for medical aid rendered to indigents in 1935 were not paid by the caisses until April 1937.

Until this dispute between the social insurance offices (caisses) and the medical profession is settled, all indigents requiring immediate treatment will be sent to adjacent public hospitals.

HEALTH INSURANCE IN BRITISH COLUMBIA

The result of the referendum on health insurance held June 1 was decidedly indefinite. Although nearly 400,000 votes were cast in the election, the vote on the referendum numbered less than half of this total. Although the seat of the government is Victoria and health insurance is assumed to be a government measure, there were 8,000 votes against health insurance and 6,000 for in that city. When the various electoral districts were examined, there was wide diversity of opinion, according to locality.

The results of the final vote on the question "Are you in favor of a comprehensive Health Insurance Scheme progressively applied?" were 116,223 in favor and 80,982 against. Ordinarily such a vote, in which more than half the voters remained indifferent, would not be taken as an unequivocal mandate for health insurance. The government has not yet stated whether it will so consider it or not.

INDUSTRIAL AND PRACTICING PHYSICIANS

That the principles of medical practice are practically identical in all countries is shown by a statement as to what are considered the proper relations between industrial and practicing physicians in an article by André Feil, chief of service of the Institute of Industrial Hygiene and Industrial Medicine of the Faculty of Medicine of Paris, in the *Presse médicale* 45:689 (May 5) 1937.

The relations between the physicians of industry and the practicing physicians have led to much discussion but would appear to be easily defined. The industrial physician is the collaborator of the employer, chosen and paid by him. He is an official attached to the factory as is the manager or engineer. It would be improper on his part, and contrary to the rules of medical ethics, if he profited by his position in the factory and the protection of the employer, his continuous contact with workers, and his moral influence in order to compete with his confrères for patients. He ought not to interfere in the regular treatment of the workers. He ought to refuse to care for sicknesses or accidents at home, though he may be called to examine these as a representative of the employer.

Without doubt it is his right and duty to give emergency care in the factory in case of sickness or accident; but whenever the condition of the worker will permit he ought to be sent to his home or to a hospital. When the worker has left the door of the factory, the factory physician's rôle is terminated. It is then the practicing physician, freely chosen by the worker, who should continue the necessary care.

EXTRACTS FROM AN ADDRESS ABOUT SICKNESS INSURANCE

A suggestion of the attitude of the Social Security Board is given in the following extracts from an address by Arthur J. Altmeyer, chairman of the Social Security Board, before the American Dental Association at Atlantic City, July 14:

> Many European countries which have preceded us in social legislation have regarded as a single unit all social measures related to sickness and have included provisions related to sickness and health—both wage benefits as well as medical and dental services—under a single system. In the United States, a tendency toward developing a different point of view on this problem is apparent. Many who are studying the subject think there are advantages in considering provisions for services, including medical, dental and health services, as one unit and in regarding provisions which protect wages or earnings as a parallel but separate unit.
>
> According to this premise, the problem of providing *health services* would be approached in the light of the measures which have already been successful in our experience with public health and other public welfare services, followed by the development of such appropriate measures as may be necessary to deal with the remaining unmet needs. And the problem of providing *economic protection*, when physical or mental disability cuts off wages, would be approached by way of our experience in providing protection when wages are cut off through other cause.
>
> In the Social Security Act we already have two plans for social insurance against loss of wages. Unemployment compensation will provide regular weekly benefits for a limited time to all covered workers; it is designed primarily to bridge the gap between jobs, to give protection against *temporary* loss of income due to a particular cause—involuntary unemployment. Old-age insurance will provide monthly payments to eligible workers after they reach 65 and retire from regular employment; it is designed to give lifetime protection against *permanent* loss of income due to a particular cause—old age.
>
> Loss of wages due to disability may also be either temporary or permanent. Many students in this field believe that a useful analogy may be drawn between the two insurance programs already in operation and the unsolved problems of these two kinds of physical disability. They suggest that the economic risks of temporary disability might perhaps be approached along lines similar to those worked out for unemployment compensation and, still earlier, for workmen's compensation; and that provision for permanent disability might follow a pattern somewhat like that of old-age insurance.
>
> Along what path the American people will finally go in their efforts at mutual protection against these risks—whether they will follow more or less directly in the footsteps of the European countries, or whether they will blaze a new trail—only the very wise, or the very foolish, would venture to predict. All

that can be said at present is that these problems are receiving increasing recognition from the public, and that they are being given the most serious study and consideration.

RESETTLEMENT MEDICAL PROGRAM

A report in the *Ohio State Medical Journal* for August says that on June 20 a joint conference of representatives of the Resettlement Administration and the Committee on Public Relations and Economics of the Ohio State Medical Association was held in Columbus for the purpose of discussing medical problems in connection with the administration of the activities of the Resettlement Administration in Ohio.

The officials of the Resettlement Administration reported that at present about 17,400 families are clients of the Resettlement Administration. After a thorough discussion and analysis of the medical problems presented, the Committee on Public Relations and Economics agreed on the following recommendations, which were adopted by Council of the Ohio State Medical Association:

I. The Ohio State Medical Association will cooperate with and assist the Resettlement Administration in an effort to supply Ohio clients of the Administration with adequate medical care and will recommend to its component societies that they do likewise provided the principles and procedures enumerated in paragraph B of this report are accepted and adhered to by the Resettlement Administration.

II. Any program to provide medical care for clients of the Resettlement Administration in Ohio shall include the following basic features:

A. Such program will be made available only to those low-income farm families which are bona fide clients of the Resettlement Administration.

B. Negotiations for the formation and administration of a medical program in each county shall be carried on by the Resettlement Administration with the county medical society, which will act for the medical profession of the county in working out a joint agreement on all phases of the medical program to be developed for Resettlement Administration clients residing in that county.

C. Control of medical service shall be exclusively in the hands of the county medical society and each client shall have the right to select the physician of his choice among physicians who are willing to take part in the medical program developed locally.

D. The county medical society will advise the county Resettlement supervisor of the physicians who have agreed to participate in the medical program. The supervisor in turn will furnish the county medical society with the names of the Resettlement Administration clients in the county and from time to time furnish it with revised lists; he shall advise clients of the names of physicians who are willing to participate in the program; he shall give to each client who has borrowed funds for medical service a memorandum showing that the recipient is a Resettlement Administration client and such memorandum shall be submitted to the physician selected by the client.

E. Physicians participating in the program will be expected to furnish Resettlement Administration clients and their families the services usually rendered by a family physician at such fees as the families are able to pay. Agreement as to fees shall be worked out jointly by the client and the physician. Services shall consist of home and office visits, including obstetric care and ordinary drugs. It will not include major operations and hospitalization, although it is understood that the Resettlement Administration will endeavor in individual cases to secure funds either through grants or additional loans for emergency surgical cases and hospitalization.

F. Controversies concerning bills for medical services shall be referred to the county medical society for adjudication by a committee designated for that purpose or any other proper agency of the society. Questions which cannot be settled locally shall be referred to the Council of the Ohio State Medical Association for review.

G. In making loans the Resettlement Administration will endeavor in all instances to have the client include an amount which can be used by him for the payment of medical services under the conditions specified in the medical program worked out jointly with the county medical society.

H. Since the Resettlement Administration program is an emergency project, the terms and conditions of the joint agreement worked out between the Administration and the county medical society may require periodic revision. Therefore it is suggested that frequent conferences be held by the local supervisor and officials of the county medical society to modify the medical program to meet new and unforeseen conditions and situations.

PHYSICIANS' CONTACTS

"The doctor is indeed fortunate that his calling brings him in contact with people of all sorts" said Dr. Floyd S. Winslow in his president's address at the annual meeting of the Medical Society of the State of New York, May 25. "This saves him from falling too deeply into the rut which he must follow all his life. It gives him the opportunity to draw upon many sources of inspiration; it tests his mettle daily; it refreshes his viewpoint; it challenges instantly his attitudes and aspirations. But there is a handicap involved in this contact of which he may not always be aware. He comes as a savior of the sick. He is as God. His word is law. There is always a tendency for a man imbued with absolute authority in the realm in which he is proficient to carry that feeling of power into realms where he is not so proficient. He himself must provide the check and balance here and, if he does not, the world will provide it for him."

FINDING MEDICAL OPPORTUNITIES

The Missouri State Medical Association is establishing a service to assist in locating communities in need of physicians and placing physicians in such positions. Members of the Association are urged to report new opportunities. The secretary of the state medical association points out that, where such opportunities exist, if they are not at once filled by a licensed physician they afford an opportunity for cults to get a foothold.

ORGANIZATION SECTION

of the

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CONTENTS

	PAGE		PAGE
UNITED STATES ASSUMES CONTROL OF CANNABIS..	31B	GROUP HOSPITALIZATION.....	36B
MEDICAL EXHIBITS AVAILABLE FOR LOAN.....	32B	MEDICAL ECONOMIC ABSTRACTS.....	38B

United States Assumes Control of Cannabis

Prepared by the Bureau of Legal Medicine and Legislation

An act to impose an occupational excise tax on certain dealers in marihuana, to impose a transfer tax on certain dealings in marihuana, and to safeguard the revenue therefrom by registry and recording was signed by the President, August 2. It becomes effective October 1. The act may be briefly cited as the "Marihuana Tax Act of 1937." Although the title of the act implies that the act relates only to preparations of cannabis used for smoking, popularly known as "marihuana," the act itself defines the word "marihuana" as used therein so as to make it cover, with certain exceptions having no relation to medicine, "all parts of the plant Cannabis sativa L., whether growing or not; the seeds thereof; the resin extracted from any part of such plant; and every compound, manufacture, salt, derivative, mixture, or preparation of such plant, its seeds, or resin." The definition thus brings within the purview of the act all medicinal preparations of cannabis and makes it necessary for every physician who desires to administer, dispense or prescribe any form of cannabis whatever to qualify under the federal act and to submit to federal jurisdiction.

Patterned after the Harrison Narcotic Act, the Marihuana Tax Act of 1937 invokes the taxing authority of the United States government to extend federal jurisdiction over cannabis so as to cover its intrastate production, manufacture, distribution and use. The jurisdiction thus established relates legally only to the collection of the tax imposed. The real object of the act, however, is not the raising of revenue but the prevention of the cannabis habit. This is said to prevail in some parts of the United States, through the smoking of certain parts of the cannabis plant, popularly referred to as marihuana. No evidence has been produced to show the existence of addiction to cannabis arising out of the medicinal use of the drug. The regulations to be promulgated under the act by the Secretary of the Treasury, however, may be expected to cover every relation of cannabis, medical and otherwise.

With the exception of federal, state and municipal officials, every person who imports, manufactures, produces, compounds, sells, deals in, dispenses, prescribes, administers or gives away cannabis or any preparation or derivative thereof covered by the act, must register annually in the office of the collector of internal revenue in the collection district in which his principal office or place of business is located and pay a prescribed occupational tax. Physicians, dentists, veterinary surgeons and other practitioners who distribute, dispense, give away, administer or prescribe cannabis or any of its derivatives or preparations to patients on whom they in the course of their professional practices are in attendance must pay a tax of $1 a year or any fraction thereof during which they engage in any such activity. A person who engages in any of the activities described in more than one place must pay the prescribed tax with respect to each place. Persons already engaged in any of the activities taxable under the act must register not later than October 15 next. Thereafter any person who desires to engage in any such activity must register before he does so, which he may do at any time during the year. All registrants must reregister annually on or before July 1.

A physician desiring to obtain cannabis or any preparation or derivative of it for professional use must obtain it on the basis of order forms purchased from the local collector of internal revenue. Each such order form is to state the date of sale, the name and address of the proposed vender of the preparation

desired, the name and address of the purchaser and the amount of the preparation, all plainly written or stamped on the order form before its delivery by the collector. Order forms will be prepared in triplicate, one copy to be retained by the collector, one copy by the vender and one by the purchaser. The vender and the purchaser must preserve their respective copies of such order forms for two years. At the time of sale, a sales tax will become payable by the purchaser, at the rate of $1 per ounce of cannabis or each fraction thereof. The physician, dentist, veterinary surgeon or other practitioner dispensing or administering cannabis or any preparation or derivative thereof is required to keep a record of the amount of the drug so transferred and the name and address of the patient to whom the transfer is made, the record being preserved for two years from the date of transfer, subject to official inspection.

A physician, dentist, veterinary surgeon or other practitioner may prescribe cannabis and its preparations to patients on whom he is in the course of his professional practice in attendance. Such prescriptions must be dated on the days on which they respectively are signed and must be signed by the physician, dentist, veterinary surgeon or other practitioner who issues them. A dealer who compounds and dispenses cannabis or any compound or derivative on the basis of any such prescription must preserve the prescription for two years from the day on which he does so, subject to inspection.

Every physician, dentist, veterinary surgeon or other practitioner registered under the Marihuana Tax Act of 1937 must keep such books and records, render under oath such statements, make such returns, and comply with such rules and regulations as the Secretary of the Treasury may from time to time prescribe. Any person registered under the act must, whenever required so to do by the collector of internal revenue of the district in which he is registered, render to the collector a true and correct statement and return, verified by affidavits, setting forth the quantity of cannabis and its preparations and derivatives received by him during such period immediately preceding the demand of the collector, not exceeding three months, as the collector may fix and determine. The statement or return must show the names of the persons from whom the drug was received, the quantity in each instance received from each such person, and the date when received. Order forms and copies thereof, prescriptions and records required to be preserved and the statements or returns filed in the office of the collector of internal revenue are to be open to inspection not only by officers and employees of the Treasury Department but also by the officers of any state or territory or of any political subdivision thereof, or of the District of Columbia, or of any insular possession of the United States, charged with the enforcement of any law or municipal ordinance relating to the producing, selling, prescribing, dispensing, dealing in or distributing of cannabis or any of its preparations or derivatives.

Officers and employees of the United States, the states, territories, District of Columbia, and insular possessions, or of any political subdivision thereof, who in the exercise of their official duties engage in any of the activities normally taxable under the act are exempted from the requirement of registration and the payment of a special tax. The procedure to be followed in the transfer of cannabis and its derivatives and preparations to such persons is to be prescribed by the Secretary of the Treasury by regulations.

Any person convicted of a violation of any of the provisions of the act is liable to a fine of not more than $2,000 or imprisonment for not more than five years, or both, in the discretion of the court.

Medical Exhibits Available for Loan

Prepared by the Bureau of Exhibits

Exhibits pertaining to the work of the various departments of the American Medical Association or to subjects in which those departments are interested have been prepared and are available on a loan basis. The material falls into two groups:

Exhibits for medical societies and other scientific organizations.

Exhibits for the public for use at fairs and expositions.

Requests for material should be instituted as far in advance as possible, so that the proper reservations can be made. Requests from groups other than medical societies should be made through the secretary of the local county or state medical society, or approval of such society obtained. Exact shipping addresses and dates should be given when the request is made.

Responsibility for installation and demonstration of the exhibits ordinarily must be borne by the organization to which the material is lent. The American Medical Association does not have the personnel for such duties.

Expenses include the items incidental to the installation and demonstration of the exhibit, as well as transportation charges.

A brief description of each exhibit is given in the following list. The notation is made whether the exhibit is intended for medical meetings or for public audiences; in a few instances both groups may be interested. The approximate amount of necessary wall space is indicated in linear feet; 30 linear feet could be provided in a straight line along the wall or around three sides of a booth 10 feet wide by 10 feet deep, with the side walls extended to the aisle in front. The electrical connections may be served either by alternating current or direct current unless otherwise noted; only 110 volts should be used, however. The shipping weights given are in approximate figures. Shipments will be made either by freight or by express, according to request.

Further information may be obtained from
Director, Scientific Exhibit
American Medical Association
535 North Dearborn Street
Chicago, Illinois.

1. What the Public Is Thinking About Health.

An exhibit from the Bureau of Health and Public Instruction consisting of a mechanical display, summarizing 10,000 questions asked by the public; ten posters each 22 by 38 inches depicting various methods of disseminating health information; display files containing brief paragraphs on 200 health subjects.

Audience, public.

Space required, 25 linear feet of wall space (booth 10 by 10 feet with side walls extended out to front of booth).

Electrical connections, one outlet, 150 watts, 110 volts, alternating or direct current.

Shipping weight, about 400 pounds.

3. The Doctor Prevents Disease.

An exhibit from the Bureau of Health and Public Instruction consisting of twelve posters, each 22 by 28 inches, showing means by which the physician may reach the public for the dissemination of health information.

Audience, medical.

Space required, about 14 linear feet of wall space.

Shipping weight, 44 pounds.

5. Information About Health.

An exhibit from the Bureau of Health and Public Instruction consisting of a mechanical piece about 45 inches high by 24 inches wide, with buttons for the visitor to push; six posters on health subjects, each 22 by 28 inches; three display files containing brief paragraphs on some 200 health topics.

Audience, public.

Space required, about 14 linear feet of wall space, with a table in front 6 feet long (booth 10 by 10 feet with side walls).

Electrical connections, one outlet requiring about 200 watts.

Shipping weight, about 275 pounds.

6. The Human Factory.

An exhibit from the Bureau of Health and Public Instruction consisting of a transparency showing the human body in the form of a factory; six posters, each 22 by 36 inches, depicting various functions of the factory; two display files containing brief paragraphs on some seventy-five topics in physiology.

Audience, public.

Electrical connections, one outlet, 180 watts, 110 volts, alternating or direct current.

Shipping weight, about 200 pounds.

9. Dangers of Self Diagnosis and Self Medication.

An exhibit from the Bureau of Health and Public Instruction, consisting of a mechanical piece with buttons for the public to push, and 6 posters, each 38 by 22 inches.

Audience, public.

Space required, about 15 linear feet.

Shipping weight, about 200 pounds.

NOTE: Additional mechanical pieces to be worked by the visitor can be sent if desired, each about 3 feet high by 2 feet wide, to be set on tables as follows:

9a. Transparent mirror; shipping weight about 80 pounds.

9d. Question and answer display; shipping weight about 80 pounds.

Electrical connections should be provided, about 60 watts for each.

10. Nutrition.

An exhibit from the Bureau of Health and Public Instruction, consisting of two transparency cases, each about 45 inches high by 24 inches wide, showing various forms of malnutrition; nineteen posters in frames, each 24 by 30 inches, dealing with various aspects of nutrition; a large number of models of food products showing calories and other details, together with glass cases in which the models may be exhibited.

Audience, medical, public or other groups according to the demonstration.

Space required, about 30 linear feet of wall space.

Electrical connections, five outlets with a total of 500 watts.

Shipping weight, about 400 pounds.

11. Prevention of Accidents.

An exhibit from the Bureau of Health and Public Instruction, consisting of four panels, each 3 feet wide, equipped with legs and apron ready to set up, on which are posters dealing with traffic accidents, Fourth of July accidents, playground accidents and accidents in the home; mechanical "scrambler" carries appropriate messages; two display files containing brief paragraphs on some seventy-five items relating to accidents.

Audience, public and special groups.

Space required, 10 linear feet.

Electrical connections, one outlet, 200 watts, 110 volts, alternating or direct current.

Shipping weight, about 340 pounds.

12. Infant Welfare.

An exhibit from the Bureau of Health and Public Instruction, consisting of eight posters, each 22 by 28 inches, dealing with various phases of antepartum care, infant feeding, and so on.

Audience, public.

Space, 10 running feet of wall.

Shipping weight, about 5 pounds.

13. Medical Discoveries of a Century.

An exhibit from the Bureau of Health and Public Instruction, originally shown at A Century of Progress Exposition in Chicago, consisting of nine groups of figures—Beaumont, Morton, Pasteur, Lister, Roentgen,

Theobald Smith, Curie, Ehrlich and Banting. Each group is set in a case with indirect lighting.

Audience, medical or public.

Space required, 16 linear feet (no back wall necessary).

Electrical connections, nine outlets, each for 60 watt lamp.

Shipping weight, about 600 pounds.

14. Individual Health.

An exhibit from the Bureau of Health and Public Instruction, consisting of a series of twelve dioramas covering such subjects as nutrition, exercise and rest, weight control, correction of defects, avoidance of infection, and intelligence in health matters.

Audience, public.

Space required, 24 linear feet.

Electrical connections, twelve outlets, using a total of about 1,000 watts.

Shipping weight, about 1,800 pounds.

17. Information About Syphilis.

An exhibit from the Bureau of Health and Public Instruction, consisting of two transparency cases showing various syphilitic lesions; a large exposition microscope showing Spirochaeta pallida; an exposition file containing brief paragraphs on the subject of syphilis together with various charts and posters.

Audience, public.

Space required, about 15 linear feet.

Electrical connections, three outlets, about 600 watts.

Shipping weight, about 250 pounds.

24. Prevention of Eye Injuries.

An exhibit from the Bureau of Health and Public Instruction in conjunction with the Section on Ophthalmology of the American Medical Association, consisting of miscellaneous posters on panels ready to set up. The panels are accompanied by a transparency case showing transparencies of various eye injuries.

Audience, public.

Space required, 10 linear feet.

Electrical connections, three outlets with a total of about 400 watts.

Shipping weight, 240 pounds.

25. Prevention of Burns.

An exhibit from the Bureau of Health and Public Instruction in conjunction with the Milwaukee Children's Hospital, consisting of miscellaneous posters on panels ready to set up and accompanied by a transparency case showing various injuries caused by burns. Where suitable arrangements can be made, a motion picture film on burns can be used with the exhibit. This will not be sent unless specifically requested. Motion picture, 16 mm., one reel, silent.

Audience, public.

Space required, 10 linear feet.

Electrical connections, two outlets with a total of about 400 watts.

Shipping weight, 240 pounds.

31. Information About Hospitals.

An exhibit from the Council on Medical Education and Hospitals, consisting of a mechanical model of a hospital entrance with doors opening and shutting every four seconds to indicate how often a patient enters a hospital in the United States, shadow boxes and miscellaneous charts.

Audience, medical or public.

Space required, 15 linear feet of wall (or more according to selection of material).

Shipping weight, according to material selected.

41. "Patent Medicines" and Quackery.

An exhibit from the Bureau of Investigation consisting of three mechanical pieces and twenty-eight posters, each 22 by 28 inches, with a literature rack for pamphlets.

Audience, medical or public.

Space required, about 35 linear feet of wall for the entire exhibit, but selections can be made to accommodate a smaller area.

Shipping weight, about 350 pounds.

42. "Patent Medicine" Testimonials.

A small portion of exhibit 41 on "patent medicines" and quackery, which has been expanded, consisting of six posters, 22 by 28 inches, and two mechanical pieces.

Audience, medical or public.

Space required, about 16 linear feet of wall.

Shipping weight, about 250 pounds.

43. Objectionable Cosmetics.

An exhibit from the Bureau of Investigation consisting of two mechanical pieces; fourteen posters and two display files with brief paragraphs on some seventy-five different cosmetics.

Audience, medical or public.

Space required, about 20 linear feet of wall.

Shipping weight, about 300 pounds.

45. Objectionable Obesity Cures.

An exhibit from the Bureau of Investigation consisting of a mechanical piece; six posters each 22 by 38 inches, and three display files with brief paragraphs covering more than a hundred items on obesity cures.

Audience, medical or public.

Space required, about 16 linear feet of wall.

Electrical connections, one outlet for 200 watts.

Shipping weight, about 200 pounds.

46. Food Fads.

An exhibit from the Bureau of Investigation consisting of a mechanical piece; six posters each 22 by 38 inches and a "scrap-book," all dealing with some of the popular, but foolish, food fads.

Audience, medical or public.

Space required, about 16 linear feet of wall.

Electrical connections, two outlets for 300 watts.

Shipping weight, about 250 pounds.

47. Mechanical Nostrums.

An exhibit from the Bureau of Investigation showing a dozen fantastic mechanical contraptions for curing human ailments; display files containing brief paragraphs on many additional mechanical nostrums.

Audience, medical or public.

Space required, about 20 linear feet.

Shipping weight, about 350 pounds.

51. Work of the Council on Pharmacy and Chemistry.

An exhibit from the Council on Pharmacy and Chemistry, consisting of miscellaneous posters, each 22 by 28 inches, from which selections can be made to fit any space desired.

Audience, medical.

Shipping weight, from 40 to 50 pounds.

52. Work of the A. M. A. Chemical Laboratory.

An exhibit from the Chemical Laboratory, similar to the one from the Council on Pharmacy and Chemistry, consisting of posters from which selections can be made to fit any space desired.

Audience, medical.

Shipping weight, from 40 to 50 pounds.

V 1
193

53. Work of the Council on Foods.

An exhibit of the Council on Foods, consisting of miscellaneous posters, each 22 by 28 inches; a mechanical door which opens and closes, 6 feet high by 3 feet wide, and an exposition "scrap-book" containing the various items of information concerning the work of the Council.

Audience, medical or public.

Space required, about 20 linear feet.

Electrical connections, two outlets, 200 watts alternating or direct current.

Shipping weight, about 350 pounds.

54. Work of the Council on Physical Therapy.

An exhibit from the Council on Physical Therapy, consisting of miscellaneous charts in frames, each 22 by 28 inches, together with selected apparatus. The following groups have been found of interest: short wave diathermy; simple apparatus for physical therapy; miscellaneous posters dealing with the work of the Council.

Audience, medical.

Space required, variable according to kind of material selected.

Electrical connections, one or more outlets if mechanical material is selected.

Shipping weight, variable according to material selected.

55. Posture Exhibit.

An exhibit from the Council on Physical Therapy, consisting of four charts, each 22 by 28 inches, and six charts, each 36 by 26 inches; manikin 4 feet high, 1 foot wide, electrically operated to demonstrate good and bad posture.

Audience, lay or medical.

Space required, about 20 linear feet.

Electrical connection, 100 watts.

Shipping weight, about 150 pounds.

56. Home Appliances for the Treatment of Poliomyelitis.

An exhibit from the Council on Physical Therapy, consisting of charts in frames, each 22 by 28 inches; samples of home-made splints and a model of an underwater treatment tank, tools (vise, hammer, pliers), wire and padding material out of which the splints are made. Charts show the methods of making the splints, using the tools and material at hand.

Audience, medical.

Space required, booth about 10 feet wide by 7 feet deep.

Shipping weight, 100 pounds.

61. Medical Economics.

An exhibit from the Bureau of Medical Economics, consisting of miscellaneous charts; rack for literature showing the publications of the Bureau, and two exposition files containing various items of information concerning medical economics.

Space required, 30 linear feet or less, according to the kind of material selected.

Audience, medical or public.

Shipping weight, about 175 pounds, according to material selected.

66. Basic Science Laws.

An exhibit from the Bureau of Legal Medicine and Legislation, consisting of six charts and frames, each 22 by 28 inches, together with a shadow box.

Audience, medical.

Space required, 15 linear feet.

Electrical connections, one outlet, 120 watts.

Shipping weight, 110 pounds.

67. Medical Legislation and Medicolegal Topics.

An exhibit from the Bureau of Legal Medicine and Legislation, consisting of miscellaneous charts in frames, each 22 by 28 inches.

Audience, medical.

space required, a booth of 15 linear feet.

Shipping weight, about 60 pounds.

71. Cutaneous Granulomas.

An exhibit from the Scientific Exhibit of the A. M. A. in conjunction with the Section on Dermatology and Syphilology, consisting of some 200 photographs of various granulomas. The photographs are mounted on eight panels, each 5 feet high and 3 feet wide with legs 2½ feet high, which can be installed readily.

Audience, medical.

Space required, 24 foot back wall by 3 feet deep.

Shipping weight, 377 pounds.

72. Cutaneous Manifestations of Syphilis.

An exhibit from the Scientific Exhibit of the A. M. A. in conjunction with the Section on Dermatology and Syphilology, consisting of about 150 photographs of the various syphilitic lesions in different stages of the disease. The photographs are mounted on panels 5 feet high by 3 feet wide with legs 2½ feet high, which can be installed readily.

Audience, medical.

Space required, 18 foot back wall by 3 feet deep.

Shipping weight, 327 pounds.

73. Histopathology of Cutaneous Syphilis.

An exhibit from the Scientific Exhibit of the A. M. A. in conjunction with the Section on Dermatology and Syphilology, consisting of some seventy-five transparencies showing the histopathology of cutaneous syphilis.

Audience, medical.

Space required, 10 linear feet.

Electrical connections, three outlets requiring a total of 200 watts.

Shipping weight, 247 pounds.

76. Allergic Asphyxia.

An exhibit from the Scientific Exhibit of the A. M. A., consisting of fourteen posters dealing with allergic asphyxia.

Audience, medical.

Space required, 24 linear feet.

Shipping weight, 112 pounds.

77. Information About the American Medical Association.

An exhibit from the Scientific Exhibit of the A. M. A., consisting of two displays—one showing the history of the American Medical Association and the other showing the activities. Several literature racks are available to show the different publications, pamphlets and books which the Association publishes.

Audience, medical or public.

Space required, about 20 linear feet.

Electrical connections, two outlets with about 500 watts.

Shipping weight, 750 pounds.

78. Aesculapius, Hygeia and Hippocrates.

Three plaster plaques in bas-relief from the Bureau of Exhibits showing Aesculapius, Hygeia and Hippocrates. Each figure is 8½ feet high, 3 feet wide, and 6 inches thick. Because of the fragile nature of the plaques, they will be sent only where they can be suitably installed.

Audience, medical or public.

Shipping weight, approximately 200 pounds for each figure.

82. Treatment of Early Syphilis.

An exhibit from the Bureau of Exhibits in conjunction with the United States Public Health Service, consisting of ten posters, each 22 by 28 inches, together with an exposition file containing various items of information about the treatment of early syphilis. (A duplicate of this exhibit can be obtained also from the United States Public Health Service, Washington, D. C.)

Audience, medical.
Space required, 15 linear feet.
Shipping weight, 125 pounds.

91. *Hygeia* in Office, School and Home.

An exhibit from the Bureau of Exhibits in conjunction with *Hygeia*, the Health Magazine, consisting of five dioramas showing the use of *Hygeia* in office, school and home.

Audience, public.
Space required, 10 linear feet.
Electrical connections, five outlets, requiring a total of 300 watts.
Shipping weight, about 250 pounds.

92. *Hygeia*, the Health Magazine.

An exhibit from the Bureau of Exhibits in conjunction with *Hygeia*, the Health Magazine, consisting of two mechanical pieces; four exposition files with questions and answers from *Hygeia*, and miscellaneous posters.

Audience, public.
Space required, about 15 linear feet.
Electrical connections, two outlets, requiring about 200 watts.
Shipping weight, about 250 pounds.

94. *Hygeia* Display.

An exhibit from the Bureau of Exhibits in conjunction with *Hygeia*, the Health Magazine, consisting of a mechanical model showing the various features of *Hygeia*, the Health Magazine (rising sun model).

Audience, public.
Space required, table 6 feet long by 2 feet wide.
Electrical connections, one outlet with about 200 watts.
Shipping weight, 148 pounds.

Group Hospitalization

NOTE.—*This is the thirteenth and last of a series of articles on Group Hospitalization, prepared by the Bureau of Medical Economics of the Association. The series later will be available in reprint form on request at the headquarters of the Association.*—ED.

INSURANCE COMPANIES AND GROUP HOSPITALIZATION

A review of the experience of accident and health insurance companies indicates the highly experimental nature of the policies issued, despite the fact that the present policy is the result of almost a century of experience in the underwriting of accident and health risks. Nearly every one of these companies would be glad to write a hospital insurance policy if a premium income in excess of claims and expenses could be expected.

Insurance companies have been unable to make a great financial success out of accident and health insurance. This is particularly true of noncancellable accident and health and separate health insurance policies. Experience with disability income policies has likewise been unsatisfactory. Despite the desirability of such insurance, the selection is against the company and will keep the cost of claims larger than the premiums regardless of the rates charged. Hospitals cannot expect to do better with group hospitalization plans unless more successful underwriting ability, less costly acquisition methods and more economical administration are developed. The officials of insurance companies and insurance actuaries are extremely skeptical of the soundness of group hospitalization plans on the basis of the benefits now offered and the premiums now charged.

Two suggestions can be carried into the group hospitalization field from the operating results of accident and health insurance companies. The first is to caution against the drafting of contracts with large benefits or with extra or "frill" benefits. Large benefits invariably lead to increased losses, and the premium costs of extra or "frill" benefits are usually incalculable separately and are too often naively assumed to be equally costless collectively. The second suggestion is to emphasize the necessity for careful compilation of statistics on hospitalization and financial experiences. The notoriously unstable history of accident and health insurance has been caused largely by the inability to determine the costs of the benefits offered.

Whether or not the plan of group hospitalization is regarded as insurance depends on the existing state statutes and case laws and the ruling of the attorney general in each state. According to the present division among the states, in twenty-nine the plan is looked on as essentially insurance, whereas in the remaining nineteen states and the District of Columbia the plan is presumably held not to be insurance. The tendency, however, is for the states which now consider the group hospitalization contract as a service contract to change to the attitude that such plans are insurance. The procedure that is now being followed is to secure the passage of a special enabling act which exempts hospital service corporations from the deposit requirements of the insurance law but at the same time gives the insurance commissioner certain supervisory powers over these corporations.

The enabling laws by focusing attention on several important requirements, such as the necessity to organize a nonprofit corporation, the regulation that the majority of directors

be hospital administrators or physicians, and the supervision by the insurance department, have served to make it difficult to promote commercial plans. The most important shortcoming of these laws is the failure to specify what is to constitute the "hospital services" offered by the hospital service plan. Likewise, considerable indefiniteness exists concerning the approval for the incorporation of a hospital service plan, the regulatory powers of the commissioner of insurance and the reserve requirements.

Largely because of the popularity of group hospitalization plans, hospital insurance companies have been formed. These companies are organized under the mutual assessment laws and issue policies offering cash benefits for all services. Despite the similarity of the several companies now in operation, there is a wide difference in their administrative practices. Some are organized with the sole interest of benefiting their community and of assisting persons to secure more adequate hospitalization. Others are organized as private business ventures.

The comparison of group hospitalization plans and hospital insurance companies suggests that a compromise organization may prove desirable. Such an organization would operate as a community hospitalization plan but would offer cash benefits directly to the patient or jointly to the patient and the hospital or physician. A hospitalization plan offering cash benefits would remove most of the objectionable features of the group hospitalization plan by avoiding the disturbances between hospitals and physicians concerning the practice of medicine in hospitals.

109
37

PRINCIPLES

The failure to provide for persons in the low income groups who really need assistance and to meet the complete expense of hospitalized illnesses may lead to the demand for compulsory subscription and expansion of benefits to include medical and surgical services. It is extremely doubtful whether hospital service corporations are the proper agency to control and regulate the distribution of medical services. However, it appears that they will attempt to do so unless supervised by hospital administrators and physicians who recognize the fundamental values of professional control of medical services. The importance of professional control and of adherence to ethical principles needs to be reaffirmed for all agencies concerned with medical services.

The decision as to whether or not a group hospitalization plan is essential must rest primarily with the medical profession and the hospital officials of the local community. The following principles are suggested in the interests of fairness, efficiency and greater security, and in the event that hospital insurance is deemed necessary.

1. The plan of organization should conform to state statutes and case law. The majority of the governing body of the hospital insurance plan should be chosen from among members of official hospital groups and members of medical societies. Great care should be taken to assure the nonprofit character of these new ventures.

2. The plan should include all reputable hospitals. The qualifications of the participating hospitals should be closely supervised. Member hospitals should be limited to those on the Hospital Register of the American Medical Association or to those approved by the state departments of public health or other state agencies in those states in which there is approval, registration or licensing of hospitals.

3. The medical profession should have a voice in the organization and administration of the plan. Since hospitals were founded to serve as facilitating means to the practice of medicine, the medical profession must concern itself intimately with plans likely to affect the relations of hospitals to physicians.

4. The subscriber's contract should exclude all medical services—contract provisions should be limited exclusively to hospital facilities. If hospital service is limited to include only hospital room accommodations such as bed, board, operating room, medicines, surgical dressings and general nursing care, the distinction between hospital service and medical service will be clear.

5. The plan should be operated on an insurance accounting basis with due consideration for earned and unearned premiums, administrative costs and reserves for contingencies and unanticipated losses. Supervision by state insurance departments has been advantageous for both the buyer and the seller of insurance contracts. Laws permitting the formation of hospital service corporations should not remove the benefits of such supervision or violate the principles enumerated.

6. There should be an upper income limit for subscribers. If group hospitalization plans are designed to aid persons with limited means to secure hospital services, they should render such service at less than regular rates. If no consideration in rates is made for persons with limited means, group hospitalization plans lose their altruistic purpose and there may be little justification for an income limit.

7. There should be no commercial or high pressure salesmanship or exorbitant or misleading advertising to secure subscribers. Such tactics are contrary to medical and hospital ethics and are against sound public policy.

8. There should be no diversion of funds to individuals or corporations seeking to secure subscribers for a profit. The moment hospitals lose their traditional character as institutions of charity and humanitarianism, the entire voluntary hospital system will break down.

9. Group hospitalization plans should not be utilized primarily or chiefly as means to increase bed occupancy or to liquidate hospital indebtedness. Such plans, if they are necessary, should place emphasis on public welfare and not on hospital finances.

10. Group hospitalization plans should not be considered a panacea for the economic ills of hospitals. They can serve only a small portion of those persons needing hospital services. Hospitals must continue to develop efficient methods of administration and service independent of any insurance method of selling their accommodations.

These ten principles have been adopted by the House of Delegates of the American Medical Association.[33] It seems reasonable that any program which may affect all hospitals and all physicians should be subjected to the ratification of democratically selected representatives. The House of Delegates of the American Medical Association is a democratically selected group of representatives of the entire medical profession in the United States. The apportionment of delegates on the basis of one delegate for every 775 members, or a fraction thereof, of the constituent state associations gives democratic representation to a large majority of all physicians in the United States. The action of the House of Delegates is the considered action of responsible delegates reflecting the convictions of the physicians of the United States and not the opinion of some minority group. The Reference Committee of the House of Delegates called particular attention to principle 4 and recommended its application in contracts for group hospitalization. The committee expressed its complete sympathy with every provision to exclude any and all types of services that involve medical care. The value of conferences between interested medical groups and hospital administrators to clarify the zone between hospital service and medical care was also suggested.

The best interests of the patient are paramount and must be protected. This is the duty of the medical profession and hospital associations, because prospective patients are not always able to evaluate critically the effect of a plan on the medical services promised. The group hospitalization movement is clearly one of the major issues demanding concerted action by physicians and hospital administrators if the future of medical practice is to be maintained on a basis which guarantees that the welfare of the sick person is the first consideration.

33. Proceedings of the House of Delegates, J. A. M. A. 108: 2219 (June 26) 1937.

Medical Economic Abstracts

NEW YORK CIVIC POLICY COMMITTEE

The New York Civic Policy Committee receives problems referred to it by the secretary of the Medical Society of the County of New York and then in turn refers its reports to the Comitia Minora for consideration. According to a report in the *New York Medical Week* (16:4 [July 24] 1937) the committee during the past year has investigated a number of the most vital problems in medical-social relations.

After an examination of existing plans for medical service bureaus designed to finance treatment for patients unable to pay for medical service, it was found that none of the existing plans were adaptable to local conditions. Therefore, a plan was formulated which is now in the hands of a special committee of the Comitia Minora for further study.

After an investigation of the advisability of establishing a central registration bureau, the board recommended that the Steingut bill to amend the public welfare law in relation to a central bureau of hospital clinics should receive the support of all the members of the county medical society.

The subcommittee studied data concerning the number of medical indigent and formulated a schedule of fees to be paid physicians for caring for these patients. This report has been forwarded to the counsel of the county medical society, which is preparing a bill for presentation to the proper authorities, this to include a plan for financing such payments.

A request having been received from a group of doctors asking for the society's approval of a contemplated group of physicians and surgeons desirous of rendering group consultation service and treatment to persons of a certain economic status, after discussion and due consideration of the subject of diagnostic clinics the following conclusions were drawn:

1. That there is apparently a trend in the direction of cooperative group practice organization throughout the country.

2. That such groups which have already been organized have not been in operation long enough to justify any expression of opinion as to their success or failure as far as the group itself and its participating medical personnel is concerned.

3. That there is no reliable information available as to the effect of the respective groups on the medical profession at large in the localities in which such groups are or have been functioning.

4. That there are no reliable data as to whether the establishment and operation of such groups have had an ameliorating or a deteriorating effect on the quality of medical service rendered by them as far as the recipients of the alleged benefits of group practice are concerned.

5. That the organization of the proposed group might lead to the formation of other similar groups with possibly resulting friction between the groups as such and the physicians at large practicing in the localities in which such groups may operate.

6. That such friction may eventually be detrimental to proper medical practice by lowering its ethical standards, because it will lead to unfair competition between the groups and their medical participants, and the average "low income" doctor.

An investigation of the numerous groups illegally practicing medicine estimated that the income of these groups reaches from one to two million dollars annually in Manhattan alone. A committee consisting of members of the Civic Policy Committee and additional members of the county medical society was appointed to investigate the problem and to determine a remedy.

Further subjects studied involved ethical problems and the organization of a cooperating council composed of representatives from each local medical society in the county of New York and the formation of an auxiliary committee on civic policy to consist of younger members of the county medical society to work in cooperation with the Civic Policy Committee.

ORGANIZATION SECTION

of the

Journal of the American Medical Association

Devoted to the Organizational, Business, Economic and Social Aspects of Medical Practice

SATURDAY, OCTOBER 2, 1937

CONTENTS

	PAGE		PAGE
GROUP HEALTH ASSOCIATION, INCORPORATED	39B	BRITISH MEDICAL ASSOCIATION	49B
DEMONSTRATING THE EARLY DIAGNOSIS OF SYPHILIS	47B	OFFICIAL NOTES	50B
CAPITALIZATION ON THE SYPHILIS EDUCATION CAMPAIGN	47B	WOMAN'S AUXILIARY	51B
		MEDICAL ECONOMIC ABSTRACTS	52B

Group Health Association, Incorporated

HEALTH INSURANCE AND CORPORATE PRACTICE OF MEDICINE UNDER FEDERAL AUSPICES

Prepared by the Bureau of Legal Medicine and Legislation

Unlicensed and unregulated health insurance and corporate practice of medicine in the District of Columbia, and wherever else in the world a civil officer or employee of the United States government may be found, are proposed in a certificate purporting to be a certificate of incorporation, filed on behalf of Group Health Association, Inc., in the office of the Recorder of Deeds of the District of Columbia, Feb. 24, 1937. The certificate makes eligible for membership every employee of every branch of the United States government other than officers and enlisted men of the army and navy. It attempts to authorize the association—

To provide, without profit to the corporation, for the service of physicians and other medical attention and any and all kinds of medical, surgical and hospital treatment to the members hereof and their dependents, and the construction and operation of a clinic and medical office building, and the construction and operation of a hospital in the manner permitted by law, for the members hereof and their dependents, and the operation of a drug store or pharmacy, and the providing of nurses and of drugs and remedies for the members hereof and their dependents, and the furnishing of all forms of hospital service and attention to the members hereof and their dependents, and in general the giving to the membership of this association and their dependents of all forms of care, treatment or attention that may be required by the sick or in the prevention of disease.

The Federal Home Loan Bank Board, a fiscal agency of the United States government, is sponsoring Group Health Association morally and through a contract of such a character that neither the Federal Home Loan Bank Board nor Group Health Association is willing to make it public.

ORIGIN OF GROUP HEALTH ASSOCIATION

The development of a health insurance organization among employees of the federal government in the District of Columbia, to pay benefits to its members in the form of medical and hospital service and not in cash, was foreshadowed by an anonymous nineteen page prospectus, marked "Confidential: For Private Circulation Only," that came to light in the early part of the current year. It offered "A Plan for a Cooperative Medical Service on a Periodic Payment Basis for Federal Employees and Their Families in Washington." The prospectus said:

The aim of this plan is to make available to Federal employees in Washington, and to their families, adequate medical care, both preventive and curative; to provide this care at moderate cost; and to place that cost on a regular, budgetable basis within the means of the group to be served. If Federal employees are typical of the general population with equivalent incomes, many do not now obtain adequate medical care, especially preventive service and care in chronic conditions, while many others incur disastrous debts each year because of sickness costs. The provision of better care should promote health and well-being and reduce time lost from work because of illness. The plan should be of benefit not only to the employees and their families, but also to the Government they serve.

The prospectus stated incidentally that "federal employees lose approximately 7 days a year from work because of illness," but it did not purport to justify the proposed organization of a health insurance association on the basis of any study of the nature and extent of illness among federal employees and their dependents, nor on the cost of such illness to such employees or to the government. Later, however, after Group Health Association had been organized, its president, by way of justification or excuse, asserted that the association was the result of studies of health conditions among the employees of the Federal Home Loan Bank Board and its affiliated agencies. No report of

any such studies, however, their methods and results, has ever been made public. Admittedly, too, even the secret study referred to did not include a parallel study of sickness among employees of the federal government other than those in the Home Owners' Loan Corporation, one of the affiliated agencies of the Federal Home Loan Bank Board.

INCORPORATION OF GROUP HEALTH ASSOCIATION

The Code of the District of Columbia, 1929, title 5, chapter 7, section 179, provides—

> Every corporation, joint-stock company, or association not exempt herein, transacting business in the District of Columbia, which collects premiums, dues, or assessments from its members or from holders of its certificates or policies, and which provides for the payment of indemnity on account of sickness or accident, or a benefit in case of death, shall be known as "health, accident, and life insurance companies or associations."

Group Health Association comes clearly within the category described, for the fact that it pays its members indemnity, not in cash, but in the form of medical and hospital service, is not material. The association, however, was probably deterred from undertaking to operate under this section because it provides that—

> No such company or association shall transact business within the District of Columbia unless it shall have in assets or in capital stock fully paid up in cash, or in both together, not less than twenty-five thousand dollars as a capital or guarantee fund. . . .

Presumably, the association, at the time of its organizataion, did not have in hand the required $25,000.

True, this section of the District Code, regulating the business of insurance in the District of Columbia, provides—

> That nothing contained herein shall apply to any relief association, not conducted for profit, composed solely of officers and enlisted men of the United States Army or Navy, or solely of employees of any other branch of the United States Government service, or solely of employees of any individual, company, firm, or corporation.

But Group Health Association could not take advantage of this, for it is not a "relief association" but an insurance association, and, moreover, under what purport to be the by-laws of the association, its membership is not to be made up solely of employees of the federal government. Members whose connections with the federal government have terminated are to have the right of continuous membership as long as they pay their dues and assessments. The association is to give no "relief" within the legal meaning of that term; it is to do nothing more than discharge its legal obligations to its members under its membership agreement.

Only by incorporation, however, could the promoters of Group Health Association avoid personal liability for the debts and torts of the association. Unable to qualify as a corporation carrying on the insurance business, and perhaps unwilling to submit to the supervision and control to which the insurance business is subjected, the organizers of Group Health Association, while still proposing to carry on the insurance business as defined in the District of Columbia Code, sought refuge under a provision of that code that has no relation to insurance. Group Health Association was therefore "incorporated" under the provisions of the District of Columbia Code, 1929, title 5, chapter 5, authorizing the incorporation of benevolent, charitable, educational, literary, musical, scientific, religious and missionary organizations, including societies formed for mutual improvement or for the promotion of the arts. Nothing in the certificate of incorporation of Group Health Association suggests that it has any educational, literary, musical, scientific, religious or missionary aspirations or is intended for the promotion of the arts. It is difficult to discover any activity named in the certificate of incorporation of Group Health Association that by any possibility brings the organization within any other of the categories named. The association is not a benevolent or charitable organization; the poorest charwoman or laborer is to pay for the indemnity offered by the association against loss through illness exactly the same dues or premiums that are to be paid by even the most wealthy officials and employees of the Federal Home Loan Bank Board and other government agencies, and nobody is to get anything whatever free under any circumstances. The association cannot successfully claim the right to incorporate as a corporation for "mutual improvement" within the meaning of the code, for any construction of the provisions of the code that would permit such incorporation would leave the code wide open for all manner of abuse; such provisions then could be used for the organization of morally and financially irresponsible finance, banking, insurance, business and professional corporations of all kinds, each organized for the "mutual improvement" of its members financially, through the exploitation of some other class or classes in the community, just as Group Health Association is. Such abuses would not be prevented by the fact that banking, insurance and many other forms of business activity and the professions are strictly regulated by law; for the business of insurance and the practice of medicine in which Group Health Association proposes to engage are likewise strictly regulated by law, and if through incorporation as an organization "for mutual improvement" the association could defeat the laws regulating insurance and the practice of medicine, other persons, differently incorporated, could defeat the laws relating to banking, insurance and

V 1
193

other businesses and the laws relating to the professions other than medicine.

Aside from the obstacles in the way of the incorporation of Group Health Association pointed out, there is a further obstacle. An organization cannot be lawfully incorporated to effect unlawful ends, and the certificate of incorporation filed by Group Health Association indicates clearly that one of its purposes is insurance, which cannot be lawfully carried on under the provisions of the code under which the association professes to be incorporated, and its other purpose, the practice of medicine, is unlawful if carried on without a license such as the association does not possess and cannot obtain either in the District of Columbia or in any state in which the association proposes to practice.

That Group Health Association does propose to engage in the insurance business is apparent from an examination of the District code, which provides that every corporation, joint stock company or association not specifically exempted, which collects dues or assessments from its members and which provides for the payment of indemnity on account of sickness or accident, shall be known as a health or accident insurance company or association and shall qualify accordingly. Under its certificate of incorporation, Group Health Association is to collect dues or assessments from its members. In event of their illness or injury, or the illness or injury of any of their dependents, it is to pay indemnity in the form of medical, hospital and other services. The fact that indemnity is paid in the form of services and not in the form of cash does not alter the situation. Without considering any of the legal principles by which this dictum may be supported, it must be clear even to any one that the payment of indemnity in services releases the insured member of the association from what otherwise would be his own obligation to pay in cash for such services and thus releases his own cash for whatever use he desires to make of it. The payment of indemnity in services is therefore the equivalent of cash payment.

That Group Health Association proposes to practice medicine in the District of Columbia, Maryland, Virginia and possibly other states is shown by its certificate of incorporation and by its by-laws. Its certificate of incorporation is a feebly disguised attempt on the part of the organizers to obtain authority for the association, without liability on the part of its members, to treat its members and their dependents, through hired servants and agents of the association, for any and all manner of disease and injury, and its so-called by-laws elaborate on that plan. This certainly constitutes the practice of medicine by the association, notwithstanding the fact that the association is not and cannot be licensed so to practice. The United States District Attorney for the District of Columbia and the Corporation Counsel for the District have both held that a corporation cannot lawfully engage in the District of Columbia in the practice of a profession that requires licensure or registration as a condition precedent to lawful practice, even though the corporation undertakes to practice through licensed or registered agents. If and when Group Health Association begins to practice medicine as proposed in its certificate of incorporation and its by-laws, the United States District Attorney and the corporation counsel for the District, in pursuance of the duties of their respective offices that they have sworn to perform, will be bound to take action to enforce the law.

From what has been said it is to be assumed that the attempt of the organizers of Group Health Association to incorporate is ineffective and that the members of the organization constitute only a voluntary association. If so, the members of the association will have a certain personal liability for its debts and torts, notwithstanding the disclaimer in the certificate of incorporation.

FINANCIAL RELATIONS

The certificate filed by Group Health Association in the office of the Recorder of Deeds in the District of Columbia provides that the association is to have no capital stock and is to render to its members and their dependents the services described therein, "without profit to the corporation" and without personal liability on the part of its members. The certificate is silent as to the sources from which the association obtained the money necessary for its organization and establishment. It is silent also with respect to the sources from which it is to derive its operating income, except that it refers to members who have paid their "dues" and to members who have paid their "dues and assessments, if any." In the pamphlet containing what purports to be the by-laws of the association, but which contains nothing to show that the members of the association ever adopted them, provision is made for the payment of "dues" and reference is made to the payment of "assessments," but the formula for levying assessments and the limitations on them, if any, do not appear. These supposed by-laws provide, however, that they may be amended by the board of trustees at any time, and, if this attempt to vest in the board of trustees supreme control over the affairs of the association is effective, the board, at any "regular meeting or at any special meeting when the proposed amendment has been set out in the notice of said meeting," can amend the by-laws so as specifically to authorize assessments and can

even at that same meeting levy on the members of the association any assessment that it deems proper.

FEDERAL HOME LOAN BANK BOARD

The sources of the money necessary to promote the organization of Group Health Association in the first place, to organize it, to provide it with necessary quarters and equipment and to guarantee operating costs long enough to determine whether the association can or cannot become self supporting are secrets carefully guarded by the Federal Home Loan Bank Board and Group Health Association. Whether this is because there are private interests behind the association that are unwilling to have their connection with it disclosed, or because disclosure might uncover a precedent that would lead to embarrassing demands on the Federal Home Loan Bank Board by persons desirous of forming similar organizations in the field of medicine, dentistry, insurance or social work, or simply because disclosure would subject the board and the association to annoying criticism, is not known. One prominent officer of the Federal Home Loan Bank Board, of the Home Owners' Loan Corporation and of the Federal Savings and Loan Insurance Corporation, who is a member of Group Health Association and has given it his particular blessing, is listed also as one of the trustees of the Twentieth Century Fund, Inc., of which Edward A. Filene of Boston is listed as president and trustee; but perhaps this has no significance.

Under what law does the Federal Home Loan Bank Board or any of its affiliated agencies finance by government loans private organizations such as Group Health Association? Even if there were such authority, good judgment would hardly justify the making of such loans in the entire absence of any likelihood of repayment. There would seem to be no likelihood of the repayment by Group Health Association of any loan made to it under its present setup. The dues of members of the association are so low that it is hardly likely that it will ever be able to pay even operating expenses—provided, of course, it undertakes to furnish its members and their dependents with really first class medical and hospital service. As far as any available record shows, provision has not been made by the association for the amortization of the initial costs of plant and equipment.

Possibly the contract between the Federal Home Loan Bank Board and Group Health Association, made apparently without advertisement or competitive bidding and carefully concealed from the public, may provide for payments to the association by the board so greatly in excess of the cost of the service that the association is to render as to enable the association to repay such advances as have been made by private interests, to pay for necessary quarters and equipment, and to protect the association against loss from medical and hospital services rendered officers and employees of the board and its affiliated agencies, and the dependents of such officers and employees. In any event, it has been admitted that the Home Owners' Loan Corporation has already appropriated an initial sum to enable Group Health Association to render services of some kind, to somebody, somewhere, and according to newspaper reports the Federal Home Loan Bank Board has guaranteed an advance up to $100,000 to get the association under way.

DUES AND ASSESSMENTS

Under the by-laws of the association, "family membership" is available for "married or single members with dependents," at a cost of $39.60 per annum payable in equal monthly instalments. No limit is placed on the number of dependents on whom a "family member" can confer all benefits of the association under this class of membership. "Individual membership" available for "married or single members having no declared dependents" is now priced at $26.40 a year, payable monthly. The amount of the dues can be changed at any time by the board of trustees. A "dependent" is defined as a person "totally dependent upon the member of the corporation for a livelihood at the time of such person's disability and before need of medical service."

CHECK-OFF ON GOVERNMENT PAYROLL

The form of application for membership provided by Group Health Association offers the member the option of paying his dues personally or of assigning to the association so much of his government salary as may be necessary for that purpose and requesting his "employer," the government of the United States, to deduct semimonthly the amount assigned and remit it to Group Health Association, Inc. As this assignment form is also an application for membership and obviously belongs to the files of the association, an additional assignment form has been provided, presumably to be filed with the paymaster of the Federal Home Loan Bank Board or the particular affiliate of the board by which the member of the association is employed. This form specifically assigns, sets over and directs the Home Owners' Loan Corporation and the Federal Savings and Loan Insurance corporation to pay Group Health Association the amount due to that association, out of any salary or wages due or to become due to the member so long as membership continues. This establishes the check-off scheme sometimes employed to hinder defections from the ranks of organizations that

V 1
193

fear difficulty in maintaining membership and to impose on the employer the burden that properly belongs to the organization of providing a collection agency. Under the check-off system, a member who finds membership no longer advantageous cannot quietly and without explanation cause his membership to be terminated by the simple expedient of omitting payment of dues. He must take affirmative action and resign from the organization, with danger of loss of social standing among his fellows, and he must notify his employer that his membership has been terminated, with the possible loss of esteem by his superior officers if the organization happens to be a pet scheme that they are promoting.

It is well established, however, that the assignment of government salaries is contrary to public policy. The assignment of any claim against the United States that has not yet been earned is forbidden by statute, and even after a claim has matured it can be legally assigned, if it can be assigned at all, only by conforming with the conditions laid down by statute, and the provisions of this statute have been held to apply to government salaries. So positive are the express and implied inhibitions against the assignment of federal salaries that, when it was deemed desirable that employees of the Department of Agriculture and of the Department of Commerce be permitted to assign their salaries, it was deemed necessary first to procure authority by act of Congress, and even then the authority granted for assignments by employees of the Department of Commerce was expressly limited to assignments made while absent from Washington and employed in the field.

The check-off scheme planned by Group Health Association, with the apparent approval of the Federal Home Loan Bank Board and its affiliates, gives the premiums or dues that are payable to the association priority over every other claim, moral or legal, against the salary of every member of the association. The association does not undertake to indemnify its members in cash, which would help the member to provide himself and his dependents, in time of sickness and in time of health, with the necessaries of life, including medical service, but to indemnify him only in medical and hospital services, and then only to the extent that the board of trustees of the association and its medical staff deem feasible in view of the resources of the association at the moment and of the condition and location of the patient. Dues or premiums under the check-off system must be paid. The insured may use only the remainder of his salary for such supplementary medical service as the association does not provide and for food, clothing, shelter and drugs and other medical and surgical supplies necessary for himself and his dependents. The hired physician of the association is to be assured his wages through the check-off system, even though food, medical and surgical supplies, and sometimes essential services, such as the use of radium and high voltage roentgen therapy, may have to be omitted because of the inability of the employee to provide them. This is in marked contrast with ordinary medical practice, in which the essentials of life and treatment for the patient and his dependents are obtained first, while the physician waits for his fee—and does so gladly when the circumstances of the patient so indicate.

If Group Health Association succeeds in establishing the check-off system as a proper and lawful way of insuring the payment of the present and prospective debts of government employees, it will undoubtedly prove a boon to labor unions, finance corporations, merchants who do business on the instalment plan, landlords and others, who under the law cannot attach or garnishee the salary of an employee of the federal government but who will be able to protect themselves in advance by demanding assignments of federal salaries as securities for debts. If Group Health Association is going to have the check-off system adopted by the federal government for its benefit, there is no reason why any and every other person, whether individual or corporate, may not claim the same privilege.

MEMBERSHIP

The original certificate filed by Group Health Association in the office of the Recorder of Deeds of the District of Columbia makes eligible for membership all "employees of any branch of the United States Government Service other than officers and enlisted men of the United States Army and Navy." It makes no discrimination on account of race or color. Such employees number 840,159 and are scattered throughout the entire civilized world. These employees and their dependents would probably number 2,500,000 and provide a rather extensive field of medical practice for Group Health Association. The organizers of the association, however, in what they call its by-laws, seek to handicap the civil employees of the federal government who are not employees of the Federal Home Loan Bank Board and its affiliated agencies, by providing that—

> in case persons other than employees of the Federal Home Loan Bank Board and agencies under its direction shall be designated as eligible for membership, such action shall first have approval of a majority of the board of trustees and a majority of the members of the corporation present in person or by proxy at a regular or special meeting.

But this restriction, like all others contained in the by-laws, is of little moment; the board

of trustees can remove or modify it in any way it sees fit, at any time.

Membership will be restricted geographically by the by-law by which members and their dependents, to be entitled to avail themselves of the medical services to be performed by the association, must be located in the District of Columbia or within ten miles of its boundaries or must come to the city of Washington for advice and treatment, although the medical director may provide for house calls at points not exceeding twenty miles distant. The potential membership of the association, however, even as thus geographically restricted, will be considerably more than 115,912. To determine the total load to be carried, the dependents of members must be added to the foregoing numbers, possibly an average of two dependents for each member.

These figures show only the potential membership and load of Group Health Association. What the actual membership and load will be, no one can foretell. If, as has been alleged, there is an undue prevalence of illness among employees of the Federal Home Loan Bank Board or of some of its affiliated agencies, a fair number of the employees who are physically inferior may be expected to join the association.

Employees, too, who now are deterred from claiming sick leave because of the expense of employing a physician to vouch for the sickness and to furnish the necessary certificate may join the association because it furnishes an easy way to obtain such certificates practically gratis. Illness among the dependents of employees, particularly among those with large families, will tend to swell the membership rolls.

As affecting the size of the membership, the standards that Group Health Association adopts in determining who may and who may not be a member will be a determining factor. If persons suffering from all manner of chronic diseases and infirmities are readily accepted for membership, employees may postpone applying for membership until they or one or more of their dependents are manifestly in ill health. Only experience can determine the probable number of members of Group Health Association and of their dependents.

The physicians employed by Group Health Association are primarily the servants and agents of the association. The records made by them as servants and agents of the association belong to the association. Their primary duty is to the association, not to the patient. They must abide by the terms of their contracts of employment, and those contracts presumably require conformity and compliance with the by-laws and rules of the association. The by-laws and rules of the association expressly provide that—

> The Medical Director shall render such reports as the Board of Trustees shall require.

Obviously, under this provision of the by-laws, the board of trustees, which includes two representatives of the Federal Home Loan Bank Board, can call for any disclosure whatever concerning the activities of the medical director and physicians and nurses working under his direction, and use, free from any obligation to secrecy, the information thus obtained.

A member of Group Health Association, as one of the conditions of membership, seems to waive, in favor of the association, his right to professional secrecy on the part of any physician-employee of the association who attends him, and impliedly his dependents, in accepting the services of such physician-employee, likewise waive their right to secrecy.

AREA TO BE SERVED

If it is difficult to determine the future membership of Group Health Association, it is not so difficult to determine the extent of the area over which it plans to extend even its initial activities. The certificate of incorporation contemplates apparently world-wide service. The by-laws, however, propose to limit the area covered by providing that—

> To be able to avail themselves of medical and surgical service, the members or dependents must be located in, or within ten miles of the District of Columbia line, or must come to the City of Washington, D. C., except that the Medical Director may provide for house calls not exceeding twenty miles.

This area covers the entire District and considerable areas in Maryland and Virginia and is bisected by the Potomac River.

The District of Columbia alone covers somewhat more than sixty square miles. An area including the District of Columbia and the territory within ten miles of its boundaries comprises approximately 750 square miles. The territory including the District of Columbia and the region within twenty miles of its boundaries covers approximately 1,950 square miles. It is obvious that to serve even the normal area, covering the District of Columbia and the territory within ten miles of its boundaries, about 750 square miles, will call for the establishment of clinical centers at various points and for liberal provisions for transportation of physicians and nurses and ambulance service. This is based on the announced plan of the association of operating through salaried full-time physicians and not through local physicians paid on a fee basis. The increased difficulties of the situation if a serious effort is to be made to cover the District of Columbia and an area within twenty miles of its boundaries is apparent.

V 1
193

BENEFITS OR INDEMNITY OFFERED

Group Health Association proposes to provide its members and their dependents with medical and hospital service. This is to be done through a salaried full-time medical staff, supplemented by a few part-time specialists, through contracts with hospitals, and through nurses when circumstances so require. The medical staff is normally to make home and hospital visits over an area of about 750 square miles and, at the discretion of the medical director, over an area of 1,950 square miles. Patients are to be encouraged, however, to present themselves at a central clinic for treatment. In such an ambitious, untried, project it is not surprising that the board of trustees should have reserved the right to itself and to its medical staff to limit the service rendered whenever either the board or the medical staff sees fit. The association has been careful not to obligate itself to furnish service of any definite kind or quantity. The so-called by-laws of the association expressly provide that—

> Section 4. The corporation will not assume responsibility for furnishing unlimited medical service to members but will do so only to the extent of its resources.
>
> Section 5. The Trustees shall have the right to determine and modify the extent of the service to be furnished to members at any time they may decide to do so upon written notice to the members to that effect given fifteen (15) days prior to any such change.

To one familiar with the city of Washington and its environs, the question necessarily arises as to how Group Health Association has solved or proposes to solve the question of service to Negroes employed by the government. Certainly government officers and employees and their dependents cannot be denied membership in the government-financed Group Health Association simply because they are Negroes. The solution will be watched with interest.

Before considering the service or indemnity that Group Health Association promises its members and their dependents—always subject to the will of the board of trustees and its medical staff—it will be well to consider definitely what it will not do or will do only conditionally. The association will not treat members who suffer from industrial accidents, nor will it perform any surgery on the brain or nervous system. It will not treat venereal diseases, except at the personal expense of the patient, at the rate of 50 cents per treatment. The association will not treat a member or any of his dependents if the medical director has recommended confinement to an institution for mental or tuberculous disease or drug or alcohol addiction. It will not provide its members with (1) dental treatment; (2) medicines; (3) surgical appliances, orthopedic devices, crutches, or artificial limbs; (4) eyeglasses or eyes [sic]; (5) hearing devices; (6) radium or high voltage roentgen treatment; (7) oxygen tanks and tents and materials; (8) blood transfusions; (9) special nursing service, unless ordered by the medical director; (10) treatment, services, supplies, and items of any kind prescribed or ordered by a physician not in the service of the association, or (11) any expense of hospitalization in excess of that allowed by the association. The association will, however, endeavor to procure such merchandise and services for members and their dependents at reduced rates. Additional limitations on any and all services and merchandise furnished by the association may be imposed by the board of trustees at any time on fifteen days' notice, and in any individual case the medical director or his representative is authorized to determine and prescribe the extent of the medical service to be rendered.

Subject to all the limitations and qualifications stated, and such further limitations and qualifications as the board of trustees and the medical director and his representatives may impose, the association offers its members and their dependents in return for the fees paid—

> Medical and surgical examinations and treatments, including examinations in special departments, such as refractions of eyes; laboratory test, x-ray examinations, surgical operations, confinement cases and professional consultations, nursing and ambulance facilities, house calls, and hospitalization in a semi-private room (2 bed room) limited to a period not to exceed 21 days for any one illness. However, members desiring to occupy a private room may do so, in which case the corporation will contribute the sum of $4.00 per day toward the expense of such room for such period. In all hospital cases, the corporation will pay for semi-private room (2 bed room) service only, except in the case of infectious or contagious diseases, in which cases a maximum of $4.00 per day will be paid for said period, not exceeding 21 days.

As far as can be learned from the certificate filed by Group Health Association and from its by-laws, no member of the association and no dependent of a member is to have any freedom of choice of his physician. Obviously, this must be so, for with a limited, salaried, full-time medical staff, operating over an area of 750 square miles or more, it would be impossible for each staff member to cover the entire area daily, to satisfy the desires of members scattered over the entire area. It is understood that the association will not object to a member or a dependent of a member being treated at his own expense, by a physician not in the service of the association. As the members of the salaried staff of the association are likely to be looked on by the profession generally in the community as on the outer verge of ethical practice, if not altogether beyond the pale, it is not clear how they are to obtain qualified consultants or procure hospital service for their patients.

Announcement has not been made at the present writing of the medical staff, beyond the

appointment of Henry R. Brown, M.D., formerly of the Veterans' Administration, as medical director. Announcement has not been made of the hospitals in which the association proposes to provide accommodations for its members and their dependents. Quarters for a clinic or laboratory have been rented in the business district of Washington but are not yet equipped. The date originally proposed for inaugurating active medical and hospital service, September 1, has been set ahead indefinitely.

CONCLUSIONS

There is no reason to believe that Group Health Association, even if it could lawfully engage in the insurance business and the practice of medicine as it proposes to do, could materially reduce the absence rate among officers and employees of the Home Owners' Loan Corporation or its related agencies. Absences on account of illness might even be increased, for a medical certificate would cost nothing. A physician cannot always deny that a man has a disabling headache, or a woman a disabling menstrual period.

Since there is no evidence to show that government employees are unable to pay for medical services, there is no reason to believe that the cheapening of medical service will make him more likely to seek medical aid. There is no reason to believe that the character of medical service under the Group Health Association plan can be kept at the same average level of quality as that prevailing in private practice. Especially would quality be likely to fail in times of epidemics and of any unusual prevalence of disease, when the limited medical staff of the association would be overworked and could find no relief. In any event, medical service under the association would be likely to be handicapped by difficulty likely to be experienced in obtaining the best consultant service and hospital accommodations. Physicians who sell their services to an organization like Group Health Association for resale to patients are certain to lose professional status.

The probable results on the medical profession of the successful operation in the District of Columbia and vicinity even of a single organization such as Group Health Association cannot be estimated.

Out of a total population of 486,869 in the District of Columbia, 115,912 are civil employees of the United States government, and, of these, 2,517 are employees of the Federal Home Loan Bank Board and its affiliated agencies. If to these persons, all of whom are eligible for membership in Group Health Association, their dependents are added, allowing an average of two dependents for each employee, a total of 347,736 persons is reached, out of a total population of 486,869 that the promoters of Group Health Association, according to their certificate of incorporation, seek to withdraw from the ordinary practice of medicine and to cover into a group health insurance contract practice system and treat through physicians hired for that purpose. The effect of the withdrawal from private practice of even one-half that number of persons, all of whom are able to pay for medical services, will materially disturb medical practice in the District of Columbia and react against public interest.

Under the scheme proposed by Group Health Association, far greater benefits will accrue to the richer and more liberally paid employees of the Federal Home Loan Bank Board and its affiliates and of such other government agencies as may identify themselves with the scheme than to employees of more meager resources. The scheme is so planned that the richer and more liberally paid employees are to obtain medical services at rates based on the incomes of the poorest employees. The courts have repeatedly held that the value of medical services rendered to a patient may be properly appraised in relation to his wealth, just as the value of legal services are commonly appraised in relation to the value of the interests that the lawyer is called on to protect, whether interests involving the life of his client or his client's property. Under the present scheme, fees that are charged for medical services to the richer and more liberally paid employees are to be identical with those charged employees of the lowest grade, doing part-time work. The richer and more highly paid and influential employees are therefore to gain the most financially by this scheme. Nothing in the certificate of incorporation or by-laws assures to those lower in the ranks that they will receive the same quantity and class of medical service as that provided for their superiors.

NEW ZEALAND HEALTH INSURANCE

New Zealand is considering a plan of health insurance; the proposals of the physicians with regard to methods of payment under the plan are outlined in a supplement to the June 1937 issue of the *New Zealand Medical Journal*. It is suggested that insured persons be divided into two groups according to their ability to pay something toward the cost of medical attention. The scheme provides for payment in cash, according to a fee schedule, with allowances for mileage, night work and certain extra services. Those who are required to pay a portion of the fees personally are to be charged 1s. 6d., approximately 36 cents, per consultation and 60 cents per visit; provisions are made to limit the amount of such personal payments during a twelve months period, after which payment these services are to be provided free, from the general fund. The functions of medical referees to check malingering are strictly limited, and it is suggested that any person sent to a referee by a physician may not change his physician during the illness then being treated; it is hoped that this will check the tendency of patients to flock to physicians with a reputation for liberality in granting certificates of incapacity to work.

Demonstrating the Early Diagnosis of Syphilis

As a Scientific Exhibit at a Medical Meeting

W. RAY JONES, M.D.
SEATTLE

The Social Hygiene Committee of the Washington State Medical Association fitted a demonstration booth at the 1937 state meeting. A few show cards advertised the advantages and methods of securing early diagnosis of syphilis by darkfield. A microscope was set up showing living spirochetes and kept going so that every one interested could see.

We had the heartiest cooperation of the charity hospital and the city and state department of health in putting on this demonstration. They were enthusiastic in assisting the family doctor toward making earlier and better diagnoses and in his holding on to the patient.

One attendant saw to the keeping of the spirochetes in the field and in focus, while another showed the method of taking specimens for darkfield in capillary tubes. He always emphasized the fact that it was much more desirable for the physician to take the specimen himself and send this instead of the patient to the laboratory.

To make sure of having a suitable open lesion with spirochetes at the right time, a rabbit known to have the organisms was secured. In addition, several were inoculated from primary cases, so visitors could see a real clinical demonstration of rabbit syphilis and the method of securing the specimen, as well as the laboratory technic and diagnosis.

The gist of comments on this exhibit was that it was most valuable to the general practitioner, who sees early cases first. He refrains from humiliating the patient by sending him to a laboratory, to say nothing of having to admit his inability to diagnose and having to refer the patient to some one else. His taking these specimens convinces the patient that he is a competent all around physician who needs not farm patients out. This use of the darkfield gives the patient the advantage of an earlier diagnosis, protects others in the family, and materially raises the quality of work done by the family doctor.

TECHNICAL AIDS IN PUTTING ON THIS DEMONSTRATION

Doctors' groups not wishing to bother with the rabbit chancre method can use preserved spirochetes from a known case. These will keep a month on dry ice if kept frozen solid and a week or two if merely kept next to the ice in an ordinary refrigerator.

Specimens taken for preservation must have the capillary tube for serum sealed at both ends with wax or petrolatum. Heat sealing is too dangerous to the life of the organisms.

The specimen needs be mounted with but a small amount of the serum, not enough to infiltrate completely under the cover slip. The edges should then be sealed with liquid petroleum to prevent evaporation. A fresh specimen will last two days if kept from drying. Preserved specimens may not last a whole day.

During demonstration, care must be used that no one misadjusts the microscope and mashes the cover; the attendant needs to insist that he himself makes sure that spirochetes are present in the center of the field for each person, even though the visitor is a better laboratory man than he himself is. People are given to moving something about a microscope involuntarily.

902 Fourth and Pike Building.

Capitalization on the Syphilis Education Campaign

From widely separated points comes information indicating a movement, ostensibly for the health education of the public, to "cash in" on the public interest in syphilis. Dr. William S. Crowley, who designates himself as "Acting Chairman," is one who is attempting to enlist the cooperation of physicians in his project. According to the records of the American Medical Association, Dr. William Simon Crowley at 712 West Division Street, Chicago, is not a member of the Chicago Medical Society and therefore holds no membership in the Illinois State Medical Society or in the American Medical Association.

The description of Dr. Crowley's plans is contained in a one-page sheet, apparently typewritten or processed in imitation of typewriting, with his name typed but not signed at the end as "Acting Chairman." The following are excerpts from this circular:

"A preliminary survey is now being made to determine the feasibility of cooperating in the campaign for a wide dissemination of knowledge of venereal diseases by making visual demonstrations to the public.

"A not-for-profit organization would be formed for the purpose of securing, preparing and distributing suitable motion pictures.

"The self-supporting plan would be to make these exhibits pay their own way by a reasonable admission charge. No fund-raising drive nor dues from members or advisory committee are contemplated.

"Of course the program would be in cooperation with some local group or society in each community, with a percentage of the admission charge to the local organization to cover expenses.

". . . this program has no connection with the venereal health [sic] survey now being conducted by the United States Public Health Service."

There is no special need for a new preliminary survey which has no connection with the surveys being made by the United States Public Health Service, with the cooperation of health officials and the medical profession. There is already one national nonprofit organization in the field combating venereal diseases, the American Social Hygiene Association; to organize more is simply to complicate the situation, scatter effort and financial support, and retard progress. Motion pictures thus far made for public exhibition, with the avowed purpose of educating the public with respect to the venereal diseases, have left something to be desired, even after receiving the best thought and consideration of those experienced in social hygiene and health education. Dr. Crowley's record fails to reveal any indication of special qualifications not possessed by workers who have been laboring in this field for years. There seems no reason to suppose that his new organization "not for profit" will contribute anything new or constructive.

Further excerpts explain the idea as follows:

"We want you to personally join us in this work, and ask you to secure in your locality, 3 leading citizens and 2 others from the medical profession as members."

"TIME ENTERPRISES, a management and publicity firm have been consulted, a copy of their suggested publicity is herewith attached. They also offer to furnish all the necessary motion picture equipment including screen in the event the auditorium or hall is not so equipped."

In addition to the typed copy, the same suggestions are also sent out in a yellow sheet apparently multigraphed—at any rate processed—in simulated typewriting. There is also a lurid clip-sheet containing editorials, news stories, magazine articles and press comments on syphilis, and—here is the apparent motivation—a heavy black imprint announcing a film, Sex Science, to be shown separately for men and women and to be accompanied by a "lecture by a physician," with a "trained nurse in attendance." Time Enterprises, 629 South Michigan Avenue, Chicago, are the managers of the film. If the physician "prospect" does not reply promptly enough, he gets a telegram:

"Miss your reply to my letter of seventh caliber of list selected makes it imperative that I have your reaction included in survey thanks."

More objectionable than anything else is the unethical nature of the whole procedure. The sponsor is not a member of organized medicine, yet he proposes to "educate the public with the cooperation of the local medical profession." What local medical profession? The organized profession is already giving cooperation to the antivenereal campaign. Moreover, the profession has established ways and means through the several councils and bureaus of the American Medical Association to function adequately in all proper health education movements. There is no place for medical prima donnas, employing a sensational sex film thinly camouflaged as an educational device, and capitalizing on the efforts of legitimate health educators. That was the racket first used by M. S. Taylor, now known as "The Voice of Experience." The proposal by Dr. Crowley is unnecessary, commercial, and not in the public interest.

Another source from which venereal disease "education" is supposed to emanate is the Venereal Disease Prevention Foundation, room 66, 201 North Wells Street, Chicago. This organization has office space with another group, for which they pay about $40 a month. They have no furniture. Persons connected with the organization appear to include Eugene A. Stanesco, Gilbert E. Costello, James D. Stoker, Mrs. Grace Gambino and Miss Rose Bruno. Eugene A. Stanesco is employed in the mailing room of the American Can Company; Gilbert E. Costello, James D. Stoker and Mrs. Grace Gambino in the United States Department of Labor, Bureau of Labor Statistics, 215 South Jefferson Street, Chicago, and Miss Rose Bruno by the Wilson Loose Leaf Company, Chicago. The foundation is represented by Attorney Benjamin H. Vanderveld, 64 West Randolph Street, Chicago. A publication is contemplated, to be entitled Fiat Lux, which will be edited by Tom Spellman, said to be a university graduate majoring in editorial work. Dr. Ben Reitman is said to be the proposed medical adviser. Circulation of the publication is contemplated through approaching physicians to subscribe to the magazine in quantities to be sent to their patients without charge; advertising is expected to cover the expense. The organization is said at this time to have no paid employees and to have a working capital of about $300. It should be obvious that the principal contribution of the foundation would be another throw-away medical publication having no particular standing and capable at best of contributing but little to the prevention of venereal diseases. THE JOURNAL is informed that all the persons connected with this organization appear to be absent from the office until late in the day. A corporate charter was granted under the Illinois Not-For-

Profit Act, August 16. The purpose is to do propaganda work for the prevention of venereal diseases by lectures, radio talks and pamphlets. It has been stated that they propose to procure support by raising funds from pharmaceutical manufacturers. The organization is not listed among a revised list of affiliates furnished by the American Social Hygiene Association. The Illinois Social Hygiene League is listed as such an affiliate. The necessity for another organization is not apparent.

From Cincinnati comes news of the organization in that city of a chapter of the "National Anti-Syphilitic League." Information also indicates that other Ohio cities are being organized. A newspaper clipping reporting the organization indicates that the intention is to raise funds for clinics. In view of the stated policy of the United States Public Health Service to devote its attention to improvement of existing clinics and to hold the establishment of new ones to a minimum, this league would not seem to be contributing in a cooperative manner to the furtherance of national aims against syphilis. It would tend to duplicate the work of the American Social Hygiene Association, which is already adequately represented in Cincinnati by the Cincinnati Social Hygiene Society, a member of the Cincinnati Community Chest and Public Health Federation and closely cooperative with the Cincinnati Academy of Medicine. This new organization, which appears to be reputable enough, is nevertheless a needless duplication. Its sponsors would do well to throw their influence and suport to an established organization instead of creating a new one.

Physicians and others interested in lending their support to the campaign against syphilis can do so most effectively through the established channels, national, state and local, namely, public health officials, medical societies, and the American Social Hygiene Association with its local affiliates. Multiplication of organizations, however sincere and ethical their purposes, simply divides financial support, scatters efforts, leads to public confusion and creates opportunity for racketeering and personal exploitation.

British Medical Association

By a Special Correspondent

A recently issued government document not only has an important connection with the policy of the British Medical Association but is likely to be adopted by the government as the basis of the future development of the health and medical services of the country. This document is the report of a committee appointed by the secretary of state for Scotland "to review the existing health services of Scotland in the light of modern conditions and knowledge, and to make recommendations on any changes in policy and organization that may be considered necessary for the promotion of efficiency and economy."

Practically the whole of the report is an endorsement of the health policy which the association has advocated for many years. This policy includes the provision for every member of the community of the services of a general medical practitioner, the more extensive utilization of general practitioners in the services provided by the local government authorities, the formation by the local organized profession of medical advisory committees to the local government authority's medical officer of health, the extension of the national health insurance scheme to include dependents of insured persons, and the provision of all hospital services on the basis of medical need rather than on the patient's ability or inability to pay for treatment. Medical and health services in this country are passing through a phase of rapid development. In Great Britain the government department known as the Ministry of Health is represented in the counties, county boroughs, urban districts and rural districts by local government authorities elected by the local taxpayers. Some of the duties of these local authorities are imposed on them by the Ministry of Health, but in other directions, including most of their public health activities, they are allowed to develop their services as they wish within the limits prescribed by acts of Parliament. Their work is financed partly by local rates and partly by grants made by the Ministry of Health.

A NATIONAL MATERNITY SERVICE SCHEME

The maternity services of this country are receiving much attention at present. Part of the British Medical Association's contribution to the subject consists of a memorandum, prepared a few years ago, outlining a national maternity service scheme. This scheme suggests arrangements which might be made by the local government authorities and the medical profession in cooperation for the provision for every woman of skilled attention throughout pregnancy and childbirth and the postpartum period. The arrangements should include facilities for antepartum and postpartum examinations, attendance by a certified midwife, attendance by a medical practitioner of the patient's choice whenever his services are required, and a consultant service. The realization of this policy was brought a stage nearer last year when Parliament passed a midwives act which required local government authorities to establish municipal midwifery services. A provision of the act which required local government authorities to consult, during the formulation of their new schemes, local organizations of the medical profession, where these existed, gave the local units of the British Medical Association an opportunity of urging on the local authorities the inclusion of the principles enunciated in the association's policy. In many areas the consultation has resulted in considerable recognition of that policy in the schemes prepared by the local authorities.

MEDICAL SERVICE FOR PERSONS OF MODERATE MEANS

The association has also considered from several aspects the provision of medical services on an insurance basis for persons of moderate means who wish to provide in advance for the cost of illness.

Many years ago the council prepared a model scheme for a "public medical service" organized by the medical practitioners in a defined area for persons who were not insured under the national health insurance act but whose incomes fell within the limit prescribed by that act. In return for a small weekly subscription, a contributor was entitled to receive from the practitioner of his choice such medical attendance and treatment as a general practitioner of ordinary competence and skill might be expected to provide. More than sixty such schemes are now in operation, and the majority of them conform to the British Medical Association's policy. The association attaches much importance to the formation and development of these schemes as a means both of supplying a medical service for persons who might otherwise be unprovided with a family doctor and of encouraging the organization of contract medical practice on lines approved by the profession. In order to meet the demand for a similar medical service for persons with moderate incomes above the national health insurance limit, the council has prepared a model scheme somewhat similar to that for a public medical service.

MEDICAL SERVICE FOR THE MIDDLE CLASS

The association has also taken part in the promotion of "provident schemes" which have for their object the provision on an insurance basis of institutional treatment for middle class persons. In 1934 it formulated the principles on which it considered such associations should be established, and during the past year it has cooperated with certain other organizations in the creation of a permanent central body whose purpose will be the coordination of provident associations.

The value of the medical supervision of employees in industrial firms has become more widely recognized in recent years, and a steadily increasing number of medical practitioners are being employed by such firms either whole time or part time. Complaints were received by the association that the work performed by these officers tended to encroach on the sphere of the general practitioner, and the council has therefore prepared a statement of its views on the duties of industrial medical officers and of their relationship with the private medical attendants of the employees.

The association is preparing to take certain steps in a matter in which it has perhaps been too backward in the past. It has been apparent for a long time that, while doctors provide news for the press when they are in trouble, the public is ignorant of a great deal of the work of the profession and of the association's work on medicosociological problems. The association is considering at present an organized campaign for the cultivation of better public relations toward the medical profession. The scheme is as yet only in the first stages of preparation.

Official Notes

ADDRESSES BY OFFICIAL STAFF

DR. W. W. BAUER:

October 5-8—American Public Health Association, New York City.
October 11—Fayette County Tuberculosis Society, Uniontown, Pa.
October 12—Westmoreland Public Health Association, Greensburg, Pa.

DR. MORRIS FISHBEIN:

October 6—State Kiwanis Convention, Battle Creek, Mich.
October 7—Saginaw Valley County Medical Societies and Auxiliaries, Bay City, Mich.
October 11—Forum Associates, Oil City, Pa.
October 13—Chamber of Commerce, Batavia, N. Y.
October 14—Medical Society of County of Oswego, N. Y.
October 14—Rotary and Kiwanis Clubs, Oswego, N. Y.
October 21—Northeastern Indiana Teachers Institute, Fort Wayne, Ind.

DR. R. G. LELAND:

October 13—Osler Society of the Vermont College of Medicine, Burlington, Vt.
October 14-15—Vermont State Medical Society, St. Johnsbury, Vt.

DR. PAUL A. TESCHNER:

October 5—Woman's Auxiliary Indiana State Medical Association, French Lick, Ind.
October 8—Parent Teacher Association Council of Northwestern Suburbs, Barrington, Ill.
October 19—Central School Parent Teacher Association, Des Plaines, Ill.
October 22—New York State Teachers Association, Schenectady, N. Y.

THE SAN FRANCISCO SESSION

Dr. Howard Morrow, 384 Post Street, San Francisco, will serve as chairman of the Local Committee on Arrangements at the Annual session of the American Medical Association to be held in San Francisco, June 13 to 17, 1938.

Dr. F. C. Warnshuis, secretary of the California Medical Association, is the chairman of the Subcommittee on Hotels. All hotel reservations, except those for members of the House of Delegates and officers and members of official bodies of the Association who are required to attend the meetings of the House of Delegates, will be cleared through the Subcommittee on Hotels. The indications are that the attendance at the San Francisco session will be larger than in any session previously held in the Far West and it is highly desirable that hotel reservations be made as early as possible. A list of San Francisco hotels will appear in the advertising columns of THE JOURNAL within the next few weeks, together with information concerning the kind of accommodations available and the rates charged. Applications for reservations should be addressed to Dr. F. C. Warnshuis, Room 2004, 450 Sutter Street, San Francisco, Calif.

AMERICAN MEDICAL ASSOCIATION RADIO PROGRAMS

The American Medical Association and the National Broadcasting Company will present a new series of dramatized radio programs during the fall and winter of 1937-1938. These programs will be similar to those broadcast in the past two years but with certain vital differences. Instead of being individual programs of varied character and seasonal timeliness, the new series will present an outline of health and hygiene suitable for a continuous study course. This program is being developed specifically for high school and junior high school audiences, but it will also be inter-

esting and useful to listeners in the home. A full description of the program, including announcement of topics for the entire year, will appear in this section of THE JOURNAL next week. The programs are scheduled to open October 13 and run weekly through and including June 15, 1938. They will be broadcast over the Red network of the National Broadcasting Company. The time of the programs is 2 p. m. eastern standard time, 1 p. m. central standard time, 12 noon mountain time and 11 a. m. Pacific time.

Woman's Auxiliary

Colorado

The annual meeting of the Woman's Auxiliary to the Colorado State Medical Society was held in Colorado Springs, September 22-25, with headquarters at the Antlers Hotel. Mrs. John A. McCaw of Denver is President.

Kentucky

The annual meeting of the Woman's Auxiliary to the Kentucky State Medical Association was held in Berea, September 13-16. Mrs. Ernest A. Barnes of Albany is president. Messages from the Kentucky State Medical Association were given by Dr. Joseph Northcutt, Covington, retiring president, and by Dr. Horace G. Reynolds, Paducah, incoming president. Members of the advisory council to the auxiliary are Drs. Virgil Kinnaird, Arthur T. McCormack and Van A. Stilley. Guest speakers at the meeting included Mrs. Augustus S. Kech, president of the Woman's Auxiliary to the American Medical Association, and Mrs. Frank N. Haggard, president of the Woman's Auxiliary to the Southern Medical Association.

The Woman's Auxiliary Section of the *Kentucky Medical Journal* has recently published a special number in memory of Dr. Joseph Nathaniel McCormack.

Pennsylvania

The annual meeting of the Woman's Auxiliary to the Medical Society of the State of Pennsylvania will be held in Philadelphia, October 4-7. Mrs. David W. Thomas is the state president. The Woman's Auxiliary to the Philadelphia County Medical Society is perfecting plans for the entertainment of women who will attend this meeting.

The Emergency Child Health Committee, already established in fifty-eight counties in Pennsylvania, is being organized in Philadelphia and all women's groups in the city are being asked to cooperate in this work. Auxiliary members will give all assistance possible to the Philadelphia County Medical Society.

At the annual meeting of the Auxiliary to the Sixth Councilor District, held in Philipsburg, Mrs. Augustus S. Kech, national president, gave a report of the first anniversary of the Medical Auxiliary of New York State, which was held in May at the Waldorf-Astoria, New York. Mrs. Kech also discussed medical legislation in Pennsylvania.

Virginia

The fifteenth annual meeting of the Woman's Auxiliary to the Medical Society of Virginia will be held in Roanoke, October 12-14, with headquarters at the Patrick Henry Hotel. Mrs. Franklin D. Wilson is president. The report of the annual meeting of the Woman's Auxiliary to the American Medical Association, held in Atlantic City, will be given by Mrs. James B. Stone, president-elect, and the report of the annual meeting of the Woman's Auxiliary to the Southern Medical Association, which was held in Baltimore, will be given by Mrs. Southgate Leigh, past-president.

A message from Dr. Wright Clarkson, Petersburg, "How the Auxiliary Can Help in the Fight for Cancer Control," will be given at this meeting.

Mrs. Augustus S. Kech, president of the Woman's Auxiliary to the American Medical Association, will be the guest speaker at the annual auxiliary luncheon. The members of the advisory council are Drs. Fletcher J. Wright, P. St. L. Moncure and James B. Stone.

Wisconsin

The annual meeting of the Woman's Auxiliary to the Wisconsin State Medical Society was held in Milwaukee, September 14-17. Mrs. Cornelius A. Harper is president and Mrs. Oscar Friske is president-elect. Dr. R. G. Leland, director of the Bureau of Medical Economics of the American Medical Association, spoke on "Confidence in Your Doctor." The address of welcome was given by Mrs. Eben J. Carey, president of the Auxiliary to the Medical Society of Milwaukee County.

OFFICERS OF AUXILIARY FOR 1937-1938

The officers and the Board of Directors of the Woman's Auxiliary to the American Medical Association for 1937-1938 are as follows:

President—Mrs. Augustus S. Kech, 1221 Twelfth Avenue, Altoona, Pa.

President-Elect—Mrs. Charles C. Tomlinson, 5215 Jackson Street, Omaha.

First Vice President—Mrs. Prentiss Willson, 2940 Albermarle Street N.W., Washington, D. C.

Second Vice President—Mrs. Lucius Cole, 1117 North Lathrop Avenue, River Forest, Ill.

Third Vice President—Mrs. Raymond M. Schulte, 2628 Manito Boulevard, Spokane, Wash.

Fourth Vice President—Mrs. William E. Hibbitts, 2524 Wood Avenue, Texarkana, Ark.

Recording Secretary—Mrs. T. R. W. Wilson, Greenville, S. C.

Corresponding Secretary—Mrs. E. Kirby Lawson, 2533 Walnut Street, Harrisburg, Pa.

Treasurer—Mrs. Elmer L. Whitney, 18224 Wildermere Avenue, Detroit.

Directors, one year—Mrs. Robert E. Fitzgerald, 7723 Stickney Avenue, Wauwatosa, Wis.; Mrs. Herbert L. Mantz, 7420 Terrace Avenue, Kansas City, Mo.; Mrs. Rollo K. Packard, 6901 Paxton Avenue, Chicago, and Mrs. Fletcher J. Wright, 49 South Market Street, Petersburg, Va.

Directors, two years—Mrs. Carl A. Surran, 5 North Brunswick Avenue, Margate City, N. J.; Mrs. John W. Burns, 309 East Broadway, Cuero, Texas., and Mrs. Leslie J. Paul, 259 Douglas Street, Salt Lake City.

Chairmen of Standing Committees:

Archives—Mrs. Robert B. Homan, 1837 Grandview, El Paso, Texas.

Exhibits—Mrs. Ily R. Beir, 114 South Virginia Avenue, Atlantic City, N. J.

Finance—Mrs. James Blake, Hopkins, Minn.

Hygeia—Mrs. James D. Lester, 208 Twenty-First Avenue, South, Nashville, Tenn.

Legislation—Mrs. Edmund D. Clark, 2005 North Illinois Street, Indianapolis.

Organization—Mrs. Prentiss Willson, 2940 Albermarle, Street N.W., Washington, D. C.

Press and Publicity—Mrs. James P. Simonds, 25 East Walton Place, Chicago.

Printing and Supplies—Mrs. E. D. Lamb, Klamath Falls, Ore.

Program—Mrs. V. E. Holcombe, 1106 Virginia Street, Charleston, W. Va.

Public Relations—Mrs. Frederick B. Elliott, 122 Seventy-Sixth Street, Brooklyn.

Revision—Mrs. James F. Percy, 1030 South Alvarado Street, Los Angeles.

Historian—Mrs. Gordon H. Ira, 1336 Challen Avenue, Jacksonville, Fla.

Parliamentarian—Mrs. Charles Rayburn, 103 State Drive, Norman, Okla.

Membership Award—Mrs. Rogers N. Herbert, Franklin Road, Nashville, Tenn.

Medical Economic Abstracts

PENNSYLVANIA PUBLIC ASSISTANCE LAW

At a recent session the Pennsylvania Legislature passed a series of "Public Assistance Laws." One of these abolished nearly all the previous overlapping boards dealing with the care of the poor and provided for the appointment of boards of eleven persons in first and second class counties and boards of seven in other counties to care for "persons needing assistance to maintain for themselves and dependents a decent and healthful standard of living"; this provision includes medical care. The policy under which the law would operate was outlined by a Special Advisory Committee on Medical Care, containing representatives of the various state medical societies and of the dental, hospital, nursing, osteopathic and pharmaceutical associations. The conclusions and recommendations of this committee outline the policy which the law was enacted to put in force and will therefore give a fairly accurate outline of its workings. These conclusions and recommendations were as follows:

1. That medical care (services of the healing arts groups) is an integral and indispensable part of any sound program for the public relief and assistance of persons unable to maintain themselves at a minimum level of health and decency.

2. That a state-wide service for this purpose should be provided, designed to meet, as nearly as possible on an equal basis, the needs of all such persons.

3. That such a program should, so far as possible, serve:

(*a*) Those receiving other forms of public assistance.

(*b*) Other persons certified by the County Assistance Board as unable to provide for themselves such necessary medical services as supplied by the healing arts groups.

4. That this program should, so far as possible, supply a complete service including:

(*a*) Preventive service, utilizing in this connection regular health agencies, and

(*b*) Corrective and curative service, including medical, dental, nursing, clinical, hospital and pharmaceutical services.

5. That the organizational framework of this program be based on the county unit of administration, with a liberal allowance of local autonomy in administration and experimentation.

6. That the general scope, standards and forms of operation should be determined by the state through the appropriate department.

7. The state office at Harrisburg should outline the basic rules of operation for the program, and the local county committees should supply the detailed procedures of operation which apply to their respective areas.

8. That the program should provide, unless otherwise specified as the result of an agreement between the Department of Public Assistance and the professional group involved, for the free selection of licensed or registered physicians, dentists, nurses, hospitals, clinics, pharmacists or other qualified organizations set up by, operated and controlled by the healing arts groups participating in this work.

9. That payment should be made on the *fee for service principle*, so far as practicable, and that all necessary adjustments of bills should be according to some predetermined plan.

10. That all participating professional persons should be given *the benefit of a hearing before their own professional group* before any official disciplinary measures are enforced.

11. That all "paper work" be reduced to an absolute minimum but be of such type as to lend itself to punch-card tabulations and analysis.

12. That a committee, representing the same interests as the committee making this report, should continue to function over a longer period, with official sanction of the state authorities and with financial means to conduct its studies.

This law went into effect June 1, 1937, and the various Pennsylvania counties are now engaged in creating the machinery necessary to its operation. The Philadelphia County Medical Society has worked out its complete program. A "Central Healing Arts Committee" of fourteen has been established, selected from the various organizations concerned. There is a Central Medical Executive Committee of three, two to be appointed by the president of the Philadelphia County Medical Society, subject to the approval of its board of directors, and one from the Homeopathic Medical Society. A complete fee schedule has been drawn up, providing $1 for an office call, $2 for a home visit, and $25 for obstetric services; the schedule also covers a wide variety of medical services, with the provision that "The maximum surgical operation fee shall be $50."

A CANADIAN EXPERIMENT

According to a statement in the *Canadian Medical Association Journal* (**37**:178 [Aug.] 1937) the Ontario Medical Association has authorized a loan of $5,000 for the inauguration of a proposed voluntary health insurance plan. A nonprofit corporation known as "The Associated Medical Services, Inc." has been formed with a board of directors composed of physicians and laymen. The corporation is entirely separate from the Ontario Medical Association and will arrange for the provision of complete medical and hospital services for individuals with limited incomes in the Toronto and Norfolk areas.

Subscribers will be charged a fee of $2 per month; the first dependent, $1.75; the second dependent, $1.50; the third dependent, $1.25, and the fourth and each subsequent dependent, $1. Benefits to be rendered are:

(1) The services of participating physicians in home, office or hospital, including consultation;
(2) surgical procedure within the scope of a competent surgeon;
(3) semiprivate available accommodation or a sum not to exceed $3.50 a day toward the cost of hospitalization in an approved hospital;
(4) all necessary nursing;
(5) maternity service to subscribers who have paid dues for ten consecutive months previous to confinement. There will be a two months probationary period and the subscriber must pay three months' subscription before becoming entitled to any service. Mental illness and chronic tuberculosis in institutions are not included as eligible for treatment.

All legally qualified medical practitioners who agree to practice under the rules of the corporation will be eligible to treat members and will receive payments according to a unit of service at the minimum fee schedule rate.

By means of this experimental plan, the Ontario Medical Association hopes to obtain much needed statistics pertaining to the actual costs of operating a complete medical care plan.

V 1
193

ORGANIZATION SECTION

of the

Journal of the American Medical Association

Devoted to the Organizational, Business, Economic and Social Aspects of Medical Practice

SATURDAY, OCTOBER 9, 1937

CONTENTS

	PAGE
AMERICAN FARM BUREAU FEDERATION STUDY	53B
NEW DRAMATIZED RADIO PROGRAMS	55B
ATTITUDE OF NEW JERSEY TOWARD THE NEW YORK RESOLUTION	57B
OFFICIAL NOTES	58B
MEDICAL ECONOMIC ABSTRACTS	60B

American Farm Bureau Federation Study

Prepared by the Bureau of Medical Economics

A questionnaire prepared by the American Farm Bureau Federation in cooperation with the Bureau of Medical Economics of the American Medical Association was published in the *Nation's Agriculture*—the organ of the Farm Bureau. The questionnaire was designed to discover the extent to which medical service might be lacking in rural districts and what proposals for change might be in the minds of the residents of farming districts.

The circulation of the *Nation's Agriculture* is said to be "more than 350,000." Between 900 and 1,000 replies were received, of which 898 were in such a form that they could be used; as rejection was due almost entirely to illegibility or clear misunderstanding of the questions, there is no reason to believe that their inclusion would in any way have changed the results. The most general conclusion is that a small percentage even of the farmers who have been subject to some educational work as to the need for additional rural medical service is sufficiently interested to reply to a questionnaire sent out by their organization.

Distance to Physician and Need of Medical Care

	Number of Replies	Distance to Physician: Under 10 Miles	Distance to Physician: 10 Miles or Over	Distance to Hospital: Under 10 Miles	Distance to Hospital: 10 Miles or Over	Need Medical Care: No	Need Medical Care: Yes	Need Medical Care: No Reply
Alabama	24	18	5	5	19	8	15	1
Arizona	87	41	41	28	55	53	29	5
Arkansas	4	1	3	..	4	1	3	..
California	9	9	..	6	3	7	2	..
Colorado	2	..	2	..	2	1	1	..
Illinois	62	56	3	12	46	47	8	7
Indiana	29	26	3	15	10	23	2	4
Iowa	57	52	5	10	45	46	6	5
Kansas	152	121	24	39	108	105	26	21
Kentucky	3	3	..	1	2	2	1	..
Louisiana	1	1	..	..	..	..	1	..
Maryland	2	1	..	..	1	1	..	1
Michigan	4	4	..	2	2	3	1	..
Minnesota	26	21	4	9	17	20	3	3
Missouri	3	2	1	..	3	2	1	..
Nebraska	2	1	1	..	2	2	..	..
New Hampshire	87	80	6	39	46	66	8	13
New York	15	14	1	4	11	12	2	1
North Carolina	1	1	..	..	1	..	1	..
Tennessee	4	1	3	..	4	1	2	..
Utah	6	5	1	1	5	1	4	1
Vermont	29	27	1	10	16	18	3	8
West Virginia	188	125	60	39	146	122	51	15
Wyoming	101	17	70	21	73	47	37	17
Total	898	627	234	239	627	588	268	102

Estimated Annual Income

	Number of Replies	Estimated Annual Income: Under $500	Under $1,000	Under $1,500	Under $2,000	Over $2,000
Alabama	24	15	3	1	..	1
Arizona	87	17	21	16	11	3
Arkansas	4	2	2	..	..	..
California	9	..	1	1	3	4
Colorado	2	..	1	..	1	..
Illinois	62	15	11	3	8	2
Indiana	29	1	7	8	7	1
Iowa	57	5	8	9	8	6
Kansas	152	33	38	25	13	6
Kentucky	3	1	..	1	1	..
Louisiana	1	..	..	..	..	..
Maryland	2	..	1	..	..	..
Michigan	4	..	2	1	1	..
Minnesota	26	1	2	3	10	1
Missouri	3	2	1	..	..	..
Nebraska	2	..	1	..	1	..
New Hampshire	87	15	28	12	13	4
New York	15	1	3	5	2	2
North Carolina	1	..	1	..	..	..
Tennessee	4	2	2	..	..	..
Utah	6	1	4	1	..	..
Vermont	29	8	2	4	4	..
West Virginia	188	75	47	25	14	3
Wyoming	101	25	18	18	9	1
Total	898	239	204	133	106	34

The following questions dealt sufficiently with factual material to permit some statistical tabulation:

How far is it from your farm to the office of a recognized physician? What is the charge for one bedside visit at home?

How far are you from a standard hospital?

Do any members of your family need urgent medical treatment? Why can't you get it?

Do members of your family use "patent medicine"?

What is the average fee in your vicinity for an office consultation?

How much do you spend annually for medical care and hospitalization?

Is your estimated income under $500? Under $1,000? Under $1,500? Under $2,000?

The accompanying tables attempt to tabulate the replies secured from these questions.

The replies cannot be considered in any sense samples of any definite section of the population. Replies were received from only half the states and bear no definite relation to the number of farmers or percentage of farm population in the various states. It seems probable that those having reason to complain of any form of deficiency in medical service would be most apt to reply; those who were satisfied would probably ignore the questionnaire. There were 234 families that stated that they were more than 10 miles from a physician; 195 of these were in four states—Arizona, Kansas, West Virginia and Wyoming. There were 627 who stated they were over 10 miles from a hospital, and the great majority of these were in the same four states.

There were 208 families, or 23 per cent, which reported that some member had need for medical care. Recalling that the strongest incentive to answering the questionnaire would be an immediate need for medical care which was difficult to obtain, this number would scarcely indicate any general lack of medical care. About half of the families reported that they use "patent medicines"; in many cases these were simple laxatives or household remedies, and the replies do not therefore seem to indicate an excessive use.

There were 315 who reported that office fees were below $1; 388, $2, and 96, over $2. It was impossible to tabulate the replies as to the cost of home visits. The fact that in many cases a mileage rate of $1 per mile, one way, was charged, undoubtedly raised the cost of medical care for those families 10 miles or over from a physician to a height at which it constituted a considerable obstacle to obtaining necessary medical care.

There were eighteen families who reported no expenditure for medical care and hospitalization. Of those who did report expenditures for medical care there were 396 who spent $100 or less per family during the preceding year and seventy-six who spent over $100. This compares fairly closely with the results of other investigations.

Nearly half the families that reported their income received less than $1,000 a year.

The final question was "What plan have you to suggest to meet this problem?" It is possible that such a question might have more value as a measure of the ideas prevalent among the members of the Farm Bureau than their replies to the questions that admit of numerical expression. It may be a measure of the effect of the great amount of discussion and propaganda of the last few years. A considerable number made no answer to this question and many of the other replies were so indefinite as to convey little idea of what the person had in mind. Eighty-six simply asked for additional physicians and sometimes added suggestions for "younger doctors," "more general practitioners," "good old-fashioned doctors," and so on. Fifty-seven indicated that they favored some form of cooperative insurance or group payment for either medical care or hospitalization. (It should be mentioned that the organ of the Farm Bureau has contained articles urging this type of medical organization.) Fifty-one indicated that they favored some form of subsidy, either by a governmental unit or by the local community, to maintain a salaried physician. There were forty-five who asked for additional nurses or nursing service. There were seventy-

Expenditure for Medical Care

	Number of Replies	Use "Patent Medicine"			Fees-Office Visit				Annual Expenditure for Medical Care and Hospitalization					
		No	Yes	No Reply	$0.50	$1	$2	Over $2	None	$10 or Under	$11 to $25	$26 to $50	$51 to $100	$101 or Over
Alabama	24	8	15	1	2	3	6	3	..	2	2	2	1	1
Arizona	87	36	47	4	..	..	53	28	3	3	5	15	11	14
Arkansas	4	2	2	..	..	3	..	1	1	..	1	2	..	..
California	9	6	2	1	..	..	5	4	..	1	..	2	..	3
Colorado	2	..	2	..	..	..	2	..	..	..	..	..	1	..
Illinois	62	31	26	5	..	29	19	2	1	7	6	3	5	4
Indiana	29	18	9	2	..	14	11	3	..	5	3	3	1	2
Iowa	57	29	25	3	..	23	28	1	1	8	6	9	5	4
Kansas	152	79	61	12	6	77	45	10	3	12	18	24	13	11
Kentucky	3	2	1	..	..	1	1	1	..	1	..	..	..	..
Louisiana	1	..	1	..	..	..	..	..	..	1	..	..	..	..
Maryland	2	1	..	1	..	1	1	..	..	..	..	..	..	..
Michigan	4	2	2	..	..	2	2	..	..	..	..	1	..	1
Minnesota	26	19	5	2	..	7	15	3	..	2	2	5	1	4
Missouri	3	1	2	..	..	3	..	..	..	..	1	1	..	..
Nebraska	2	1	1	..	..	1	1	..	..	..	1	..	1	..
New Hampshire	87	32	45	10	..	29	52	4	2	16	11	10	7	5
New York	15	12	3	..	1	5	9	..	1	1	1	1	3	..
North Carolina	1	..	1	..	..	..	..	..	..	1	..	..	..	..
Tennessee	4	1	3	..	..	..	4	..	..	..	..	1	..	..
Utah	6	1	5	..	..	2	1	3	..	..	1	1	1	1
Vermont	29	20	7	2	..	7	15	1	3	..	2	6	2	1
West Virginia	188	69	111	8	1	76	68	17	3	22	27	39	21	9
Wyoming	101	39	59	7	..	20	34	15	..	1	6	14	13	16
Total	898	409	435	58	10	305	388	96	18	87	103	120	86	76

V 1 193

four whose proposals included additional hospital services: twenty-three of these urged a new hospital by a governmental unit or support of existing ones by the government; twenty-four asked for a "health unit or clinic" or some similar phrase; sixteen simply said additional hospitals were needed, and eleven asked only for "cheaper hospitalization." In some form or another, twelve called for extra health services, and the same number thought that the best plan would be a campaign of health education.

New Dramatized Radio Programs

"TO AMERICA'S SCHOOLS—YOUR HEALTH!"

Prepared by the Bureau of Health and Public Instruction

The American Medical Association and the National Broadcasting Company will present the fifth series of network health programs beginning October 13 and running weekly through June 15, 1938. The programs will be presented over the Red network each Wednesday at 2 p. m. eastern standard time, 1 p. m. central standard time, 12 o'clock mountain standard time and 11 a. m. Pacific standard time.

The programs for 1937-1938 represent the third series of dramatizations, the first two series on the National Broadcasting Company networks having been health talks. The series for 1937-1938 departs in some respects from the character of the last two series in that it is being planned specifically for the aid of health teachers in the junior and senior high schools of the United States. In order to enhance the usefulness of the program for these groups to the greatest possible extent, programs are planned as a coordinated series and announced in advance for the whole season instead of for three weeks only. This announcement may be repeated from time to time, listing the programs still to be broadcast, but after this first announcement, programs will be announced in THE JOURNAL weekly only for the remainder of the current month and for the next succeeding month. In case of emergencies that may require the use of radio facilities at the time of the American Medical Association broadcast, the program for that week will be omitted, but no change will be made in the topics announced for succeeding weeks.

As a further aid to teachers, a radio department has been initiated in *Hygeia*, beginning with the October issue. In this department will be published monthly a complete announcement of radio programs still to be broadcast, and for the next four programs subsequent to the issue date of *Hygeia* there will be published for each program a summary of the information which the program will convey, a list of books which is suggested for the use of the teacher in connection with the topic of the program, and a set of suggestions for projects which may be carried out locally by the classes listening to the broadcast. The purpose of the project is to enrich health teaching, assist the teachers, and present health facts in a useful and interesting form to that age group which will constitute the responsible citizens of our country in the very near future.

DATES AND TOPICS OF WEEKLY BROADCASTS

1937

Personal Health

October 13—Learning About Health: introductory, explanatory.

October 20—Growing for Strength and Beauty: favorable and unfavorable factors in growth and the maintenance of normal weight.

October 27—Seeing and Hearing Well: hearing and vision; how to conserve these; how to recognize deviations; how to prevent loss.

November 3—Striving for Better Bodies: so-called physical defects; their recognition; what can be done about them.

Hygiene

November 10—Playing for Fun: health values and hazards in sports and recreation, including football.

November 17—Fresh Air, Fresh Clothes and Fresh Skin: ventilation; clothing; bathing.

November 24—Rest, Relaxation, Refreshment: all work and no play, or all play and no rest—bad for health.

December 1—Tuberculosis, Foe of Youth: how bad habits of hygiene and unwise living, plus infection, favor tuberculosis.

Diet

December 8—It Takes All Good Foods: a well rounded diet and how to get it.

December 15—Vitamins, Minerals and Common Sense: more about a balanced diet in special relation to minerals and vitamins.

December 22—Dietary Fads: facts versus fallacies in relation to prevalent false notions about diet.

December 29—Milk from Farm to Table: the production, transportation, pasteurization and home care of milk; its place in the diet; processed milks.

1938

Contagious Diseases

January 5—Sneezes and Sniffles: cause, spread, prevention of colds, pneumonia and influenza; importance of early medical care.

January 12—Scarlet Fever, Measles and Whooping Cough: modern attitudes toward these diseases; their prevention by community cooperation.

January 19—Smallpox and Diphtheria: unnecessary diseases; preventable by immunization of infants.
January 26—Poliomyelitis: information about the disease; cooperation with President's Birthday Ball.

Diseases of Middle Age

February 2—Rheumatism and Arthritis: known factors in the causation of arthritis and its care.
February 9—Healthy Hearts and Arteries: known ways of protecting the heart against infection and hygienic abuse; how to live with heart disease.
February 16—Don't Fear Cancer—Fight It: known factors in the cause, prevention and treatment of cancer.
February 23—Overcoming Diabetes: individual efforts plus medical aid will win against diabetes.

Public Health

March 2—Water, Waste and Sanitation: importance of community control of water supplies, sewage disposal and general sanitary matters.
March 9—Protecting Perishable Foods: what the community can and must do to protect fresh foods such as fish, fruits, vegetables, meats, bakery goods.
March 16—Keeping Books on Health: the meaning and the importance of vital statistics, contagious disease reporting and community health records.
March 23—Catching Disease from Animals: rabbit fever, rabies, undulant fever and similar infections, and what can be done about them.

Health Education

March 30—A Fool for a Day: fallacies and popular beliefs that are not true and that influence behavior in a manner detrimental to health.
April 6—Living with People: elements of mental hygiene; getting along with people; adjustment to the environment.
April 13—It May Happen to You: accidents in the home and on the highway and ways to avoid them.
April 20—Who Chooses Your Doctor? The characteristics of a reputable physician as distinguished from cults, quacks, fakers, faddists or exploiters.

Mothers and Children

April 27—Healthier Babies: daily routine of the healthy baby; medical supervision; feeding.
May 4—Healthier Mothers: general advice for the expectant mother; good for boys and girls to know about.
May 11—Hospitals Aid Health: the place of the hospital in the health program of the individual and the community.
May 18—Runabouts, 1938 Model: the preschool child and the health and personality problems of that age.

Using Health Knowledge

May 25—The Health Check-Up: periodic health examination and what follows, and why.
June 1—Vacation Plays and Misplays: making the vacation a real contribution to health and recreation.
June 8—Graduation and Then What? A new phase of life begins at commencement, and health contributes to success.
June 15—What Medicine Offers for Health: flashes from the American Medical Association meeting at San Francisco, giving highlights of medical progress.

The scripts will be outlined as in the past by the Bureau of Health and Public Instruction. The speakers, who will have not to exceed three minutes on each program, will be Dr. W. W. Bauer, director of the bureau, and Dr. Paul A. Teschner, assistant director. Other speakers from American Medical Association headquarters may be called on as occasion indicates. Speakers will not be announced in THE JOURNAL, since travel engagements may require shifting of speakers from time to time.

The general plan and outline of topics has been discussed with leading educators in various parts of the United States, and their suggestions have been incorporated. In its present form it has the approval of a number of prominent educators, including school superintendents, health teaching supervisors, teacher-training instructors and officials of the National Education Association. Prof. J. Mace Andress, school health editor of *Hygeia*, is cooperating in the preparation of the monthly briefs for *Hygeia*, the bibliographies and the suggestions for classroom or community activities.

RED NETWORK

WEAF	New York	WGL	Fort Wayne	WBAP	Fort Worth
WNAC	Boston	WOOD	Grand Rapids	KTBS	Shreveport
WTIC	Hartford	WBOW	Terre Haute	KTHS	Hot Springs
WJAR	Providence	WGBF	Evansville	KARK	Little Rock
WTAG	Worcester	WEBC	Duluth-Sup'r	KPRC	Houston
WCSH	Portland, Me.	KSOO	Sioux Falls	WOAI	San Antonio
KYW	Philadelphia	KANS	Wichita	KFDM	Beaumont
WDEL	Wilmington	WTAR	Norfolk	KRIS	Corpus Christi
WFBR	Baltimore	WPTF	Raleigh	KRGV	Weslaco
WRC	Washington	WSOC	Charlotte	WTMJ	Milwaukee
WGY	Schenectady	WFBC	Greenville	WIBA	Madison
WBEN	Buffalo	WWNC	Asheville	WDAY	Fargo
WCAE	Pittsburgh	WIS	Columbia	KFYR	Bismarck
WTAM	Cleveland	WCSC	Charleston	KOA	Denver
WWJ	Detroit	WAVE	Louisville	KDYL	Salt Lake City
WSAI	Cincinnati	WSM	Nashville	KPO	San Francisco
WIRE	Indianapolis	WMC	Memphis	KFI	Los Angeles
WMAQ	Chicago	WSB	Atlanta	KGW	Portland, Ore.
KSD	St. Louis	WJDX	Jackson	KOMO	Seattle
KSTP	Minn.-St.Paul	WSMB	New Orleans	KHQ	Spokane
WHO	Des Moines	WROL	Knoxville	KTAR	Phoenix
WOW	Omaha	WJAX	Jacksonville	KOB	Albuquerque
WDAF	Kansas City	WFLA-WSUN	Tampa	KFBK	Sacramento
WLW	Cincinnati	WIOD	Miami	KWG	Stockton
WFEA	Manchester	KGBX	Springfield, Mo.	KMJ	Fresno
WSAN	Allentown	KVOO	Tulsa	KERN	Bakersfield
WORK	York	WKY	Oklahoma City	KIDO	Boise
WMBG	Richmond	KGNC	Amarillo	KGIR	Butte
WCOL	Columbus	WFAA	Dallas	KGHL	Billings

As in the two years last past, the National Broadcasting Company is furnishing its network facilities without charge and is cooperating liberally in making available at minimum expense the necessary script preparation, casting, production and sound effects, as well as a generous orchestra.

The stations to which the program is available are listed herewith. It should be noted that these stations are privileged to broadcast the program, which is sent them over the network, but that they are not obligated to do so, since this is a noncommercial program. Publication of this list of stations is therefore not to be interpreted as positive assurance that each of them will broadcast the program. Neither the National Broadcasting Company nor the American Medical Association can give any assurance that a given station will or will not

put a noncommercial program on the air. It is quite possible, however, that evidences of interest on the part of local medical societies and their auxiliaries, and of the local educators, parent-teacher associations, and other community groups, may have weight with program directors of local stations. Personal visits to such program directors might be advisable. This is an opportunity for the appropriate committees of county medical societies to indicate their interest in having this program broadcast in their community, and to enlist the interest of other groups.

For accessory publicity to announce the program, there have been preliminary announcements in state medical, public health and educational journals, and in national journals in the educational field. Six thousand supervisors of health education in high schools have been notified by direct mail, through the courtesy of the School Health Education Service directed by the Joint Committee on Health Problems in Education of the National Education Association of the United States and the American Medical Association. County and city medical society and health department bulletins have received notices, which in many instances have been prominently displayed. Posters have been printed, and distribution of these to the schools is being arranged locally through the Woman's Auxiliary to the American Medical Association. Envelop stuffers will be enclosed in mail to teachers from the American Medical Association headquarters. The publicity department of the National Broadcasting Company will publicize the program through the usual channels.

The new program series is not intended to supplant health teaching in the schools but to supplement it. Owing to its dramatized character, it should not lose the appeal which it has had in the past two years for listeners in the home.

The title YOUR HEALTH, which has now been in use for four years, will be retained, but with a slight change in the salutation. Following the fanfare of opening music, the announcer will greet the listener with the toast "To America's Schools—Your Health!"

There has been a desire among physicians to have an evening program, which they themselves might have an opportunity to hear and which would be expected to reach more men than an afternoon program. Efforts have been made to arrange for an evening program. Evening time is radio's most valuable time and is not available on a sustaining (noncommercial) basis except in fifteen minute periods late in the evening; this is not time enough to develop a good dramatized program unless it is a serial appearing at least Monday through Friday. With existing budgets for radio work this was not feasible. It was decided after numerous conferences with broadcasting company officials that a program in aid of health instruction in the schools was the most useful program that could be broadcast under existing circumstances.

Attitude of New Jersey Toward the New York Resolution

To the Officers and Members of the Board of Trustees of the American Medical Association:

The following resolutions were forwarded by the Welfare Committee of the Medical Society of New Jersey to its Board of Trustees and adopted by them on Aug. 20, 1937:

I. That the Medical Society of New Jersey wishes to express its approval and accord with the manner in which the proposals of the New York delegation were disposed of by the House of Delegates of the American Medical Association on June 9 in Atlantic City with certain reservations.

Inasmuch as the American Medical Association, as a national organization, is composed of and derives its power from forty-eight component state societies, it is natural to assume that the central organization desires to carry out the policies and achieve the aims of the majority of its component organizations. We therefore assume that the officers and trustees of the parent organization are anxious to hear as promptly as possible from the component societies as to their reaction to any stand taken by the House of Delegates during an immediate past convention.

The Medical Society of New Jersey therefore feels it is not only its privilege but its duty to acquaint the Board of Trustees and officers of the American Medical Association of its attitude with regard to the resolution passed at the eighty-eighth annual session of the House of Delegates in Atlantic City on June 9, 1937, and reported in the Proceedings of the Atlantic City Session on page 2220 as follows:

"The American Medical Association reaffirms its willingness on receipt of direct request to cooperate with any governmental or other qualified agency and to make available the information, observations and results of investigation together with any facilities of the Association."

This rather broad offer, unless properly interpreted, might very readily be construed as implying a willingness on the part of the American Medical Association to participate in the socialization of medicine. To any such statement as the above should be appended a statement of the Ten Principles to be followed in meeting the problems of medical service in the United States which the American Medical Association adopted at its eighty-fifth annual session:

First: All features of medical service in any method of medical practice should be under the control of the medical profession. No other body or individual is legally or educationally equipped to exercise such control.

Second: No third party must be permitted to come between the patient and his physician in any medical relation. All responsibility for the character of medical service must be borne by the profession.

Third: Patients must have absolute freedom to choose a legally qualified doctor of medicine who will serve them from among all those qualified to practice and who are willing to give service.

Fourth: The method of giving the service must retain a permanent confidential relation between the patient and a "family physician." This relation must be the fundamental and dominating feature of any system.

Fifth: All medical phases of all institutions involved in the medical service should be under professional control, it being understood that hospital service and medical service should be considered separately. These institutions are but expansions of the equipment of the physician. He is the only one whom the laws of all nations recognize as competent to use them in the delivery of service. The medical profession alone can determine the adequacy and character of such institutions. Their value depends on their operation according to medical standards.

Sixth: However the cost of medical service must be distributed, the immediate cost should be borne by the patient, if able to pay, at the time the service is rendered.

Seventh: Medical service must have no connection with any cash benefits.

Eighth: Any form of medical service should include within its scope all qualified physicians of the locality covered by its operation who wish to give service under the conditions established.

Ninth: Systems for the relief of low income classes should be limited strictly to those below the "comfort level" standard of incomes.

Tenth: There should be no restrictions by nonmedical groups on treatment or prescribing unless formulated and enforced by the organized medical profession.

II. The Medical Society of New Jersey pledges its continued cooperation with federal and state departments of health, as now constituted. We believe:

A. that Federal government control in the practice of medicine should be confined to:

1. Medical service in the Army, Navy and Marine Corps.

2. Hospitalization and medical care rendered to war veterans suffering from disabilities the direct result from wounds or diseases incurred while on active duty, or when hospital study is indicated to determine the eligibility for pension.

3. Public Health Service in its strict meaning:

(*a.*) Epidemiology.

(*b.*) Control of occupational disease.

(*c.*) Control of individuals or conditions that are a menace to the general health of the community.

(*d.*) Research with regard to any of the above.

4. That local government control be confined to the maintenance of institutions for the care of the insane, epileptics and those having communicable diseases and needing isolation.

B. That all other phases of the practice of medicine should be free from governmental supervision or control.

C. That the principle of caring for the indigent by the use of public funds for various sources for the payment of physicians for their services on a reduced fee basis should be supported. These funds, however, should be administered by local agencies with provision for the preservation to the patient of free choice of a legally licensed physician and an institution where hospital service is necessary.

D. That any national health policy should meet the approval of the American Medical Association and any plan for the use of public funds in the promotion of such policy in any locality should be approved by local units of organized medicine.

E. That the medical care of those gainfully employed but in the so-called low-wage group should not receive government aid but be cared for by private physicians through a mutual adjustment of fees on the deferred payment basis.

F. That compulsory health insurance or any other form of state medicine is not suited to the American people and would be detrimental to both the deliverer and the recipient of such services.

It is therefore the earnest desire of the Medical Society of New Jersey that the American Medical Association be mindful of its own principles stated in 1934 and qualify its willingness to cooperate with "any government or qualified agency," depending on whether or not the plans of such agency are within the bounds so stated.

These resolutions are respectfully submitted to the Officers and Trustees of the American Medical Association.

Official Notes

ABSTRACT OF MINUTES OF MEETINGS OF BOARD OF TRUSTEES

The Board of Trustees of the American Medical Association held a two day session at the headquarters of the Association, Sept. 16 and 17, 1937. A brief report of some of the actions taken follows:

Standard Classified Nomenclature of Disease

The Board voted to comply with a request from the executive committee of the National Conference on Nomenclature of Disease to take over the work of that organization and the publication of the Standard Nomenclature.

Elections and Appointments

The Chairman of the Board of Trustees was directed to appoint a liaison committee to cooperate with outside organizations on request.

Dr. Ludvig Hektoen was appointed to represent the American Medical Association in the American Documentation Institute for a period of three years; the President, Dr. J. H. J. Upham, to represent the American Medical Association at the meeting of the American Bar Association, and Dr. Hans Zinsser as representative at the third International Congress for Microbiology, to be held in 1939.

The nomination of Dr. Howard Morrow as chairman of the Local Committee on Arrangements for the San Francisco session, to be held June 13-17, 1938, was confirmed.

Nine physicians were named to constitute the Council on Industrial Health, in accordance with instructions from the House of Delegates for the establishment of this council. The membership of the Council will be announced later when acceptances have been received.

Dr. W. L. Benedict was elected to succeed Dr. Walter R. Parker on the editorial board of the *Archives of Ophthalmology.*

Drs. D. Chester Brown, Ludvig Hektoen and Urban Maes were reelected to the Advisory Committee of the Committee on Scientific Exhibit.

Hospitalization of Veterans

The Committee on Legislative Activities of the Association was authorized to offer to cooperate with the Committee on World War Veterans' Legislation, or any subcommittee thereof which its chairman may appoint, to frame legislation concerning the hospitalization of veterans.

Sutures

The Board expressed its approval of bills S. 1629 and H. R. 6359 to regulate the manufacture, distribution and sale of sutures.

Second National Conference on Educational Broadcasting

An invitation to the Association to become a cooperating organization in the second National Conference on Educational Broadcasting was accepted, and

Dr. W. W. Bauer was appointed to represent the Association at the conference.

Conference on Health Education for the Public

It was decided to hold a Conference on Health Education for the Public in the headquarters office of the Association Oct. 30, 1937, to which "science writers" will be invited.

Appropriations

Appropriations were made for Scientific Exhibits for the San Francisco session of the Association, for the purchase of necessary equipment for the mechanical department and for the purchase of another 35 mm. noninflammable copy of the film on syphilis.

Resolution on Death of Dr. George H. Simmons

The following resolution on the death of Dr. George H. Simmons, Editor and General Manager Emeritus of the Association, was adopted:

WHEREAS, Dr. George H. Simmons rendered distinguished service to the medical profession and to the American Medical Association from 1899, when he became Secretary and Editor, through 1924, when he retired holding the positions of Editor and General Manager; and

WHEREAS, During this period of twenty-five years, his wise leadership, his courage, his progressiveness and his initiative advanced the interests and the status of the Association to heights never before reached by any medical organization; and

WHEREAS, His work for the American Medical Association was characterized by intelligence, unselfishness, honesty and righteousness, and his interest endured to the very end of his days; and

WHEREAS, The Board of Trustees, through its intimate contact with Dr. George H. Simmons in all of these works, is cognizant of the extent to which he gave of himself freely for the good of all; therefore be it

Resolved, That this Board of Trustees spread upon its minutes its recognition of his accomplishment, and that it tender to his relatives a suitable copy of these resolutions and its sincere sympathy in their sorrow at his passing.

Miscellaneous

The following and other subjects also were given consideration, but action on them was not taken at this meeting: medical patents, the decision concerning trademarks and its effect on the publications of the American Medical Association, the placing of an exhibit in the Theater of Health at the New York World's Fair and in the Hall of Science at the Golden Gate International Exposition—both to be held in 1939—resuscitation and asphyxia, and extension of visual education through motion pictures.

COMING MEDICAL EXHIBITS

October 11-15—Health Week under the auspices of the Fort Wayne Medical Society and Y. M. C. A. officials, Fort Wayne, Ind. Exhibits on The Human Factory, Individual Health and Heart Disease.

October 14-15—Annual Meeting, Vermont State Medical Society, St. Johnsbury, Vt. Exhibits on The Doctor Prevents Disease, Basic Science Laws and Treatment of Early Syphilis.

October 15—Health Program sponsored by the Parent-Teachers Association, Rocksprings, Texas. Exhibit on Posture.

October 18-24—County Fair, Tarboro, N. C. Exhibit on Syphilis.

October 19—Joint Meeting of Medical Society of the County of Nassau and the Nassau County Cancer Committee, Mineola, N. Y. Exhibit on Cutaneous Granulomas.

October 25-29—Annual Session, American College of Surgeons, Chicago.

October 28-29—Teachers' Convention, Omaha. Exhibit on Health and Hygiene under the auspices of the Omaha-Douglas County Medical Society.

SYPHILIS: "A MOTION PICTURE CLINIC"

The following reservations have been made for the sound motion picture film on syphilis:

October 14-15—Medico-Military Inactive Duty Training Unit, Mayo Clinic, Rochester, Minn.

October 14-15—Vermont State Medical Society, St. Johnsbury, Vt.

October 20—University of Vermont College of Medicine, Burlington, Vt.

October 26—Dallam-Moore-Hartley Medical Society, Dalhart, Texas.

November 1-3—Texas Public Health Association, Dallas, Texas.

November 5—Local Medical Society, Honolulu, Hawaii.

ADDRESSES BY OFFICIAL STAFF

DR. W. W. BAUER:

October 11—Fayette County Tuberculosis Society, Uniontown, Pa.

October 12—Westmoreland Public Health Association, Greensburg, Pa.

October 25—King County Medical Society, Seattle.

October 25—Woman's University Club, Seattle.

October 26-27—Eastern Washington State Teachers College; Chamber of Commerce; Spokane County Medical Society; Washington State College; Advertising and Sales Association, Spokane, Wash.

DR. MORRIS FISHBEIN:

October 11—Forum Associates, Belles Lettres Club, Oil City, Pa.

October 13—Chamber of Commerce, Batavia, N. Y.

October 14—Medical Society of County of Oswego, N. Y.

October 14—Rotary and Kiwanis Clubs, Oswego, N. Y.

October 21—Northeastern Indiana Teachers Institute, Fort Wayne, Ind.

DR. R. G. LELAND:

October 11—Lecture to Senior Class, University of Illinois Medical School.

October 13—Osler Society of the Vermont College of Medicine, Burlington, Vt.

October 14-15—Vermont State Medical Society, St. Johnsbury, Vt.

October 19—Children's Bureau Conference, Washington, D. C.

October 24—Mid Year Organization Conference, Ohio State Medical Association, Columbus, Ohio.

October 27—Rotary Club of Omaha, Omaha, Neb.

DR. PAUL A. TESCHNER:

October 19—Central School Parent-Teacher Association, Des Plaines, Ill.

October 25—Evening Auxiliary of the Austin Woman's Club, Chicago.

October 29—Tennessee Education Association, Nashville, Tenn.

Medical Economic Abstracts

MORBIDITY UNDER THE SCOTTISH PANEL SYSTEM

A Report of the Department of Health for Scotland on "Incapacitating Sickness in the Insured Population of Scotland" states that:

> In all but one of the eleven broad groupings of diseases that have been adopted, there is evidence of increased incapacity; the exception being the respiratory group which includes influenza. The duration of incapacity has also increased in all but the respiratory group and the groups comprising general diseases, diseases of the circulatory system and pregnancy. The increase in chronic incapacity and the fall in the relatively short-duration influenza group are reflected in the average duration of illness, which at 52¼ days exceeds anything hitherto recorded.

The annual average number of cases of incapacity for 1,000 insured population during the five years from 1930 to 1935 was 214, and in 1936 was 219. The average days of incapacity per insured person was 11.45 a year in the fiscal year 1935-1936—an increase of 5.3 per cent as compared with 1934-1935 and an increase of 14.7 per cent over the annual average for the five years from 1930 to 1935. The average duration of incapacity in 1935-1936 was 52.21 days; this rate "exceeds those for every previous year in every population group, with the one minor exception of married women in 1931-1932."

These figures are nearly double such corresponding ones as are most nearly comparable in the United States, since there are really no figures covering exactly the same facts in the two countries. The Scottish Report includes chronic disease, much of which has involved continuous incapacity for several years. This accounts for nearly half of the total days of incapacity but does not, of course, account for anything like the same percentage of cases of incapacity. The figures that seem to be most nearly comparable in the experience of the United States are those given by Dean K. Brundage, statistician of the United States Public Health Service, in *Public Health Reports* (43: 1957 [July 27] 1928), on "The Trend of Disabling Sickness Among the Employees of Public Utilities." According to this report, the average number of days of disability in 1927 was 8.2 for males and 6.4 for females. The same author has computed the rates, since 1921, of disabling illness among industrial employees in a group of about 170,000 male industrial employees. The latest summary available is that in *Public Health Reports* (50: 1527 [Nov. 1] 1935). (These reports, however, do not count causes of disability lasting less than eight consecutive calendar days, which, of course, greatly reduces the reported cases of illness.) The report states:

> The average number of days of disability per case and the annual number of days of disability per person were computed from the record of time lost from cases which terminated in 1934. In that year illnesses and non-industrial accidents lasting longer than one week caused 3.9 calendar days of disability per male, and 6.5 days per female member of reporting associations having a benefit period of fifty-two weeks.

While the figures for the two countries are not comparable at many points, it would scarcely seem probable that the differences in the method of tabulation would account for the fact that the incidence of morbidity and the length of disability appear to be considerably more than twice as much under the system of compulsory insurance in Scotland as they are in the United States, even under systems of voluntary insurance that might be expected to have much the same effect in discouraging the "will to get well." The only significant difference which would seem to be capable of causing decline in morbidity in one country and an increase in the other is insurance. The significant thing, however, which would seem to be strictly comparable is that the morbidity in Scotland is steadily increasing, while that in the United States showed a decrease in the frequency of cases of disability per thousand from 112.4 in 1929 to 78.1 in 1934.

PATIENTS, NOT DISEASES, ARE TREATED

Sir Auckland Geddes, in an address delivered at the Bicentenary of the Royal Medical Society (reported in the *Edinburgh Medical Journal* 44:366 [June] 1937), said:

> Time and again, when, in various parts of the world, I have found myself ill or injured and confined to bed, I have been attended by doctors who never even found out that I had any medical training; in fact, they never found out anything about me at all. They were concerned to treat "The Injury" or "The Disease" and not me, the patient; they were in short dealing with a pure abstraction and thinking that they were being very scientific. The more I have seen of life and death, of pain and suffering, the more clearly I have realized that there is never in the real world outside the walls of the Medical School and teaching hospital "A Disease" to be treated; there is never "An Injury" to be dealt with; there is just a sick child, woman, man to be helped to get well. In short, the real business of clinical medicine is not science. It is, in the case of each sufferer, a personal relationship into which sincerity and medical knowledge are suffused by the physician, and trust and some dependence by the patient.

OLD AGE PENSIONS DO NOT REDUCE NEED FOR RELIEF

Dr. S. S. Goldwater, hospitals' commissioner for the city of New York, reports that old age assistance and pensions have not reduced the population of New York City's homes for the aged; there are now 109 more old people in City Home on Welfare Island than there were in 1936, an increase of 7 per cent.

Of the 600 men and women admitted to the home during the first half of 1937, 60 per cent were eligible for old age assistance, but only 9 per cent of the eligibles filed applications for pensions, in spite of active work on the part of the social service division. Two thirds of those who were discharged as pensioners had to be taken back; they claimed that pensions were inadequate and also complained of lonesomeness, inability to resist spending the allowance for alcohol, and, in some instances, a need of medical care.

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CONTENTS

	PAGE		PAGE
VISUAL STANDARDS FOR LICENSURE TO OPERATE MOTOR VEHICLES	61B	FEDERAL CANNABIS REGULATIONS APPROVED	63B
		OFFICIAL NOTES	64B

Visual Standards for Licensure to Operate Motor Vehicles

Preliminary Report of Special Committee at Atlantic City Session

NELSON M. BLACK, M.D., MIAMI, FLA.; HARRY S. GRADLE, M.D., CHICAGO, and ALBERT C. SNELL, M.D., ROCHESTER, N. Y.

In 1925 a report on visual standards for operating motor vehicles was submitted to the Section on Ophthalmology and approved by the House of Delegates of the American Medical Association. There were embodied in this report, first, recommendations of minimum visual requirements, and, second, that under certain conditions applicants with less than this minimum be qualified by special or county boards of licensure. The report further recommended: "In each state there shall be a board of physical licensure in each county, or one for several counties, consisting of two general practitioners or surgeons and one ophthalmologist." The second part of this submitted recommendation proved to be impracticable and therefore has not been embodied in law or in practice. The general purpose of this recommendation was to provide a certain degree of flexibility in the administration of the suggested visual requirements. For it was, and still is, generally agreed, on the one hand in the interest of greater safety and on the other of justice to some, that standards of good vision which are necessary for efficient operation of a motor vehicle cannot be arbitrarily fixed since the problem of safety depends on other factors as well; for example, the driver's natural aptitude, experience, and general mental and physical fitness. The lack of good vision may be compensated for by a high degree of efficiency in these other factors. But the appalling increase in the number of serious automobile accidents compels the further attention of all those interested in public welfare to study the problem of accident prevention.

Read before the Section on Ophthalmology at the Eighty-Eighth Annual Session of the American Medical Association, Atlantic City, N. J., June 11, 1937.

During the year 1936, 38,500 deaths were due to traffic accidents, 110,000 persons were permanently injured and 1,230,000 were temporarily injured. With ever increasing numbers of automobiles in use and with increasing speed, the safety of the public demands the elimination of preventable accidents.

One study of the data relating to the cause of automobile accidents shows that the driver alone was responsible for three out of five accidents. Faulty mechanism was responsible for about 1 per cent. Condition of roadway, weather, traffic and, foremost of all, speed were responsible or contributed to motor vehicle accidents. In nearly all types of accidents, except faulty mechanism, all investigators agree that physical or mental defects of the driver have a part, good vision being of paramount importance. Since the driver alone is responsible for the major proportion of motor vehicle accidents, the problem facing the medical profession is fundamentally the establishment of practical methods by which to determine or measure the driver's ability to operate a motor vehicle.

The Section on Ophthalmology is interested in the visual phase of this problem, but this is necessarily complex. The visual function cannot be separated from the physical and mental, and a high degree of coordination of all these is most important to the skilful and safe operation of an automobile. The measure of good vision alone does not measure the driver's ability to interpret and to act on what is seen. However, good vision is essential in order to obtain the transmission of proper sensory impressions to these other essential functions.

To determine visual standards which are adequate to a greater degree of safety in operating motor vehicles, your committee has consulted the following for suggestions and advice: Council of State Governments, National Safety Council, American Automobile Association, National Society for the Prevention of Blindness, Bureau of Legal Medicine of the American Medical Association, United States Department of Commerce, National Bureau of Standards, National Research Council, and many students of traffic problems.

After consideration of the many phases of this problem, we submit the following recommendations:

1. Bureaus of licensure shall be established in every state, and in as many subdivisions thereof as may be necessary.
   (*a*) A license shall be issued to each individual only after determining the applicant's ability to operate a motor vehicle.
   (*b*) To test this ability actual road tests shall be made by legally appointed lay persons who shall be trained and instructed in adequate methods for detecting those who possess the necessary aptitude.

2. Unlimited License:
   (*a*) To those who pass the prescribed tests with an established rating, an unlimited license shall be granted.
   (*b*) Those who fail to meet established standards as a result of the tests shall be referred either to a duly licensed physician or surgeon in the community for more detailed examination to determine the nature of the defect and its correction when possible if the lack of ability is evidently physical, or, if the failure is evidently due to lack of skill, to a driver's clinic for training in operation until the necessary skill is acquired.
   (*c*) The physician, surgeon or expert shall make a report of his examination and shall submit recommendations with regard to the applicant's fitness to operate a motor vehicle, after training, treatment or correction of defects when such is possible.
   (*d*) The local bureau referring the applicant shall have final jurisdiction in disposal of all applications for license.

3. Limited License:
   (*a*) Some applicants with borderline defects or partial incapacities may be given a limited license: such limited licenses to state on the license card the limitation or restriction imposed and the cause for issuing such limited license.
   (*b*) No applicant shall be granted a limited license who operates a motor vehicle in public transportation.

4. This report does not include specific recommendations for standards of physical fitness other than those factors relating to vision.

5. Visual Tests and Standards:
   (*a*) To those authorized to conduct the visual examination, instructions shall be given in the use, purpose and manner of recording essential tests. For example, the Snellen test card for determining visual acuity, Ishihara book or colored disks for detecting color blindness, simple methods for detecting gross defects in field, and cover tests to determine binocular single vision or the more conspicuous muscle abnormalities.
   (*b*) When applicants are discovered with defects of vision which fall below the standards set for an unlimited license, such applicants shall be referred to an eye physician for correction of any possible defects. (The major portion of such defects are correctable.)
   (*c*) The eye physician shall furnish the applicant or bureau with a written statement of best results obtained by correction of any defects uncorrectable and a recommendation of the fitness or unfitness of the applicant.

6. Minimum Visual Standards for Licensure: For an unlimited license, provided that physical, mental and aptitude tests are satisfactory, an applicant shall meet the following minimum visual standards:
   (*a*) Visual acuity with or without glasses of 20/40 Sn. in one eye and 20/100 Sn. in the other.
   (*b*) A form field of not less than 45 degrees to both sides laterally from point of fixation.
   (*c*) Binocular single vision.
   (*d*) Ability to distinguish red, green and yellow.
   Glasses, when required, must be worn while driving, and those employed in public transportation shall carry an extra pair.

7. Visual Standards for Limited License: A limited or restricted license may be issued to applicants who are unable to meet the visual standards set for unlimited license. The minimum requirements for this shall be:
   (*a*) Visual acuity shall be not less than 20/65 Sn. in the better eye. (The one eyed, the aphakic and the color blind are not disqualified.)
   (*b*) Field of vision shall be not less than 125 degrees horizontally in one eye.
   (*c*) Diplopia shall not be present.

V 1
193

(*d*) Other personal qualities which may compensate for minor defects of vision and which are necessary for efficient operation of a motor vehicle should rate high for those to whom a limited license is issued. For example, experience, nervous stability, coordination of eye, mind and muscle; and aptitude must be fully adequate to meet the practical road tests.

8. Renewals, Retesting and Reexaminations: Physical condition, general, mental, nervous and ocular, is liable to change, and hence the need for some practical method to discover any acquired incapacity. The following is suggested:

(*a*) Renewals of license shall be issued at least every third year. The applicant shall with each renewal make a declaration that he knows of no physical, mental or visual defect which has developed during the past year.

(*b*) If any such defects have developed, an examination by a physician and the report thereof shall be required before the license is reissued.

(*c*) When the applicant for renewal of license has a record of repeated accidents, such applicant shall be required to obtain a report from experts duly qualified to determine the probable cause for such accidents before the renewal is issued. Physical fitness (including ocular), psychologic status and general aptitude shall be reconsidered and license granted only on convincing evidence of ability to operate a motor vehicle efficiently.

Federal Cannabis Regulations Approved

Prepared by the Bureau of Legal Medicine and Legislation

Regulations for effectuating the provisions of the Marihuana Tax Act of 1937 were approved September 29 by the Secretary of the Treasury. The general requirements of the act as they relate to physicians were stated in the ORGANIZATION SECTION OF THE JOURNAL, September 11, pp. 31B and 32B. Every physician who distributes, dispenses, gives away, administers or prescribes cannabis or any of its derivatives or preparations is required by the act to register with the collector of internal revenue of his collection district, obtain an official registration number and pay the required tax.

Applications for registration must be filed on form 678c, procurable from the collector of internal revenue. An inventory, in duplicate and under oath, of all cannabis and preparations thereof on hand must be filed with the application. Physicians will normally register in class 4 and be subject to a tax of $1 each year. A physician who sells or dispenses cannabis apart from the legitimate practice of his profession is liable to an additional tax of $3 a year as a dealer. If he dispenses cannabis only incidentally to the legitimate practice of his profession, he incurs no liability for the tax imposed on the dealer. A physician maintaining an office in a collection district where he is duly registered with the collector of internal revenue and where his stock of cannabis and his cannabis records are kept may, but only in the course of his professional practice, distribute, dispense, give away, administer or prescribe cannabis in other collection districts in which he lawfully engages in the practice of his profession, without incurring additional tax liability; but if he maintains an office in another collection district or even maintains two or more offices in the same collection district, he must pay a tax with respect to each office.

Hospitals, colleges, medical and dental clinics, sanatoriums and other institutions, not exempt as government institutions, are subject to the same taxes and incidental regulation as other registrants similarly dealing in or handling cannabis. When an institution is subject to tax, the head thereof or of the department wherein the cannabis is to be used must sign the application for registration. Nurses, under the regulations, are regarded as agents of the practitioners or institutions under whose direction or supervision their duties are performed. They are not permitted to register under the act nor are they permitted to be in possession of cannabis except as such agents, or as patients. Cannabis left by a physician with a nurse, to be administered during his absence, must on her discharge from the case be returned to the physician, who will account for it on his records. Any cannabis found in the possession of a nurse not at the time under the supervision of a physician will be forfeited to the government.

A physician desiring to obtain cannabis must make application on form 679a (Marihuana), to the collector of internal revenue for the district in which the physician is located for the purchase of an order form. The application must show (1) the physician's name, address and cannabis registry number, (2) the name and address of the person from whom the cannabis is to be purchased, and (3) a description of the desired cannabis and the amount to be purchased. The application must be accom-

panied by a certified check, cash or money order in payment of the transfer tax of $1 an ounce or fraction thereof, plus 2 cents in payment of the order form. Order forms will be prepared by the collector in triplicate. The original and duplicate will be delivered to the physician. He will deliver the original to the person from whom he purchases the cannabis and preserve his duplicate copy for two years. The triplicate will be retained by the collector. There are no exempt medicinal cannabis preparations; every preparation containing cannabis in any form and in any amount is covered by the act. Physicians must keep daily records showing the kind and quantity of cannabis dispensed or administered, the name and address of each person to whom dispensed or administered, the name and address of the person on whose authority the cannabis was dispensed or administered, and the purpose for which it was dispensed or administered. Every such record must be kept for a period of two years in such manner as to be readily accessible to inspection by investigating officers. No special record form will be furnished by the government for the use of those registered as practitioners, including hospitals and institutions, but each registrant is advised to keep records in the manner that is best calculated to enable an inspecting officer quickly to ascertain the quantity and kind of cannabis used daily. The initials of the practitioner giving directions for the administering of cannabis to a patient in a hospital should appear on the patient's record chart, or a prescription may be used, giving the name and address of the patient, the date, and the physician's signature or initials, which should be filed with the pharmacist in charge of the drug room before the cannabis leaves his charge. If, however, a prescription is used, reference to it should appear on the chart.

All prescriptions for cannabis must be dated as of and signed on the day when issued and must bear the full name and address of the patient and the name, address and cannabis registry number of the practitioner. Prescriptions should be written with ink or indelible pencil or be typewritten. If typewritten, the prescription should be of course signed by the physician. The refilling of a prescription for cannabis is prohibited by the regulations. Generally, the furnishing of cannabis pursuant to telephone advice of physicians is prohibited, whether prescriptions covering such orders are subsequently received or not. In an emergency, however, a dealer may deliver cannabis through his employee or responsible agent pursuant to a telephone order, provided the employee or agent is supplied with a properly prepared prescription before delivery is made, such prescription to be turned over to the dealer and filed by him as required by law within a reasonable time after delivery. The government does not furnish prescription forms. Any form may be used, provided it is properly executed and shows the required information.

A physician who utilizes cannabis in the course of his professional practice should obtain a copy of the regulations that have been promulgated and familiarize himself with their requirements. Application for such a copy may be made to the collector of internal revenue of the collection district in which registration is to be effected.

Official Notes

RADIO BROADCASTS

The American Medical Association and the National Broadcasting Company present the fifth series of network health programs beginning Oct. 13, 1937, and running weekly through June 15, 1938. The programs will be presented over the Red network each Wednesday at 2 p. m. eastern standard time, 1 p. m. central standard time, 12 o'clock noon mountain standard time and 11 a. m. Pacific standard time.

DATES AND TOPICS OF WEEKLY BROADCASTS

1937

Personal Health

October 20—Growing for Strength and Beauty: favorable and unfavorable factors in growth and the maintenance of normal weight.

October 27—Seeing and Hearing Well: hearing and vision; how to conserve these; how to recognize deviations; how to prevent loss.

November 3—Striving for Better Bodies: so-called physical defects; their recognition; what can be done about them.

Hygiene

November 10—Playing for Fun: health values and hazards in sports and recreation, including football.

November 17—Fresh Air, Fresh Clothes and Fresh Skin: ventilation; clothing; bathing.

November 24—Rest, Relaxation, Refreshment: all work and no play, or all play and no rest—bad for health.

The stations on the Red network are privileged to broadcast the program but, since it is a noncommercial program, they are not obligated to do so. Interest on the part of medical societies, women's auxiliaries and others may have weight with program directors of local stations.

A personal visit to the program director might be advisable if it should happen that the program is not being taken by a local station. This is an opportunity for the appropriate committees of county medical societies to indicate their interest in having this program broadcast in their community and to enlist the interest of other groups.

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Devoted to the Organizational, Business, Economic and Social Aspects of Medical Practice

SATURDAY, OCTOBER 30, 1937

CONTENTS

	PAGE
COUNTY MEDICAL SOCIETIES AND GROUP HOSPITALIZATION	65B
MEDICINE SURVEYS SICKNESS INSURANCE IN CZECHO-SLOVAKIA	66B
OFFICIAL NOTES	70B
MEDICAL ECONOMIC ABSTRACTS	71B

County Medical Societies and Group Hospitalization

A Statement Prepared by the Bureau of Medical Economics

The House of Delegates at the Atlantic City session this year adopted the following principles, "in the interest of fairness, efficiency, and greater security," to be observed in any plan of hospital insurance:

1. The plan of organization should conform to state statutes and case law. The majority of the governing body of the hospital insurance plan should be chosen from among members of official hospital groups and members of medical societies. Great care should be taken to assure the nonprofit character of these new ventures.

2. The plan should include all reputable hospitals. The qualifications of the participating hospitals should be closely supervised. Member hospitals should be limited to those on the Hospital Register of the American Medical Association or to those approved by the state departments of public health or other state agencies in those states in which there is approval, registration or licensing of hospitals.

3. The medical profession should have a voice in the organization and administration of the plan. Since hospitals were founded to serve as facilitating means to the practice of medicine, the medical profession must concern itself intimately with plans likely to affect the relations of hospitals to physicians.

4. The subscriber's contract should exclude all medical services—contract provisions should be limited exclusively to hospital facilities. If hospital service is limited to include only hospital room accommodations such as bed, board, operating room, medicines, surgical dressings and general nursing care, the distinction between hospital service and medical service will be clear.

5. The plan should be operated on an insurance accounting basis with due consideration for earned and unearned premiums, administrative costs and reserves for contingencies and unanticipated losses. Supervision by state insurance departments has been advantageous for both the buyer and the seller of insurance contracts. Laws permitting the formation of hospital service corporations should not remove the benefits of such supervision or violate the principles enumerated.

6. There should be an upper income limit for subscribers. If group hospitalization plans are designed to aid persons with limited means to secure hospital services, they should render such service at less than regular rates. If no consideration in rates is made for persons with limited means, group hospitalization plans lose their altruistic purpose and there may be little justification for an income limit.

7. There should be no commercial or high pressure salesmanship or exorbitant or misleading advertising to secure subscribers. Such tactics are contrary to medical and hospital ethics and are against sound public policy.

8. There should be no diversion of funds to individuals or corporations seeking to secure subscribers for a profit. The moment hospitals lose their traditional character as institutions of charity and humanitarianism, the entire voluntary hospital system will break down.

9. Group hospitalization plans should not be utilized primarily or chiefly as a means to increase bed occupancy or to liquidate hospital indebtedness. Such plans, if they are necessary, should place emphasis on public welfare and not on hospital finances.

10. Group hospitalization plans should not be considered a panacea for the economic ills of hospitals. They can serve only a small portion of those persons needing hospital services. Hospitals must continue to develop efficient methods of administration and service independent of any insurance method of selling their accommodations.

These resolutions do not concern any attempt to establish the necessity for group hospitalization insurance. The responsibility for such a decision rests with the local community, especially the medical profession and hospital authorities.

Should it be deemed advisable to organize some system of group hospitalization insurance to supplement the already existing facilities within the community, these principles are intended to serve as a guide to county medical societies in their study of any action on such insurance proposals.

County medical societies should give careful consideration to these principles, not because they were imposed on them by arbitrary authority but because the principles and the officially adopted policies express the opinion of the members of the societies which constitute the American Medical Association.

Medicine Surveys Sickness Insurance in Czechoslovakia

A Statement Prepared by the Bureau of Medical Economics

Czechoslovakia has been hailed as a leader in social legislation. When the government was formed, a ministry for social welfare was created as a part of the cabinet. Under the leadership of Dr. Masaryk as president of the republic—who was himself a sociologist, especially interested in social welfare—an extensive and supposedly advanced system of social legislation including various forms of social insurance was enacted into law. In spite of the fact that advantage was taken of the experience of older nations in this field, there has been revealed, within a period of less than twenty years, such a variety of defects in the operation of this legislation that extensive changes are now being planned. In view of these proposed changes, the Czechoslovakian and the German medical associations united in a formal statement, published in the *Aerztliche Nachrichten* (23: 722 [Sept.] 1937), the essential portions of which are given below. It is scarcely necessary to point out the many places where this statement applies to conditions now existing or apparently imminent in the United States.

I. PHYSICIANS EXCLUDED FROM PRELIMINARY WORK ON SOCIAL LEGISLATION

The present legislative period is especially characterized by the large number of measures dealing with social legislation that are already on the way to enactment. These include new legislation concerning pensions for civil service employees, especially in the higher income brackets, sickness insurance for the civil service, extensive changes in social insurance, a proposal to erect an independent system of sickness insurance for the employees of the state railroads, a similar law concerning postal employees, and significant amendments in old age and invalidity insurance. The medical profession certainly has a right to be heard regarding all these measures, which so deeply affect the professional, economic and social interests of medicine. In spite of this fact the physicians have been given no opportunity to present their suggestions or to express their needs and their desires with regard to this proposed legislation, except that here and there they have been permitted to express their opinion on a few points which sometimes involved the most important decisions.

The profession has been given no opportunity during the preparation of these laws to contribute its medical experience and knowledge. We do not know just why the value of medical cooperation has been so little recognized or why it has gained the distrust of social-political circles, both official and nonofficial; nevertheless it is evident that this attitude has arisen and prevails at the present time. It is clear that the profession will not at this time be called on in the preliminary stages of social work or, at the best, it will be given only a formal recognition after much insistence on its part.

The Ministry for Social Welfare created a commission in 1936 to prepare new laws concerning pensions in the civil service and a second to prepare laws for sickness insurance for the "white collar" class in private industry. The physicians had scarcely any representation on either commission. It must be admitted that this is largely due to a sort of indifference which led the commissions to neglect medical advice and not to call physicians in the first discussions or later to the full meetings of the commissions —a condition which practically excluded any real cooperation.

At the same time the Ministry for Social Welfare was working on a new law concerning sickness insurance for civil service employees. In spite of the fact that the members of the medical profession were greatly affected by this proposed law, an opportunity was not given to the profession to share in the preparatory work.

A short time ago the Central Social Insurance Office directed its own commission to prepare a new law on social insurance for the working class. Although physicians were employed in the administration of the insurance office, no physician was a member of this commission and there was no official representation of the medical profession.

The Ministry for Postal Telegraph has constantly urged that the sickness fund of the postal employees be made legally independent, but although this proposed change greatly affected medical service the physicians heard of it only by accident.

The Ministry for Social Welfare has been at work since 1926 on a new law concerning insurance for independent proprietors, but the medical profession is not represented on this commission.

The Railroad Ministry is the only one that has consulted in any way with the medical profession with regard to new legislation concerning the sickness insurance societies of the railroads.

It is clear that these proposed measures involve fundamental changes in laws that deeply concern the health care of a majority of the population and that they deeply affect not only the art and practice of medicine but the

economic and social relations of the medical profession, and, even further, that they may easily and harmfully restrict the free development of medical science.

These facts compel the Czechoslovakian medical profession to set forth its position, at least with regard to the more fundamental questions, and to expect that its statements will at least be recognized to some extent by the government, the ministries, commissions, legislators and the public.

It would seem to be almost superfluous to point out how necessary it is that the position of the physicians should be considered in the very beginning of the discussion of such legislation and that the carefully considered conclusions and proposals of the physicians should not be disregarded.

We are fully conscious that, because the physicians have been excluded from all participation in the preliminary work, they must necessarily be unfamiliar with the full content of all the proposed measures, and that therefore we must content ourselves with setting forth certain fundamental considerations which we are prepared to expand in detail as soon as we are informed concerning the proposals being considered.

II. DISCUSSION OF SEPARATE LAWS.

1. *New Laws Affecting Pension Insurance for Officials in the Higher Positions.*—The practice of medicine changes with the lapse of time. Originally it was conducted exclusively as a free profession. As the care of the individual became more and more affected with public interest and general compulsory insurance was introduced, the position of the practicing physician was changed. In ever greater numbers and to an ever greater extent physicians tend to become employees of the government and of insurance institutions.

Statistical investigations by the medical association show that not more than one third of the income of Czechoslovakian physicians comes from private practice, while more than two thirds is derived as employees of the government, of institutions and of carriers of insurance. This has created a condition that is unparalleled in any other profession, in that the physician's income is derived from two sources—first, as an employee of numerous employers and, second, as a private practitioner.

It is therefore not surprising that the law governing pensions for the more highly paid employees gives no recognition to the special needs of the physicians but applies only to those classes which receive their major income as employees. The physicians, with their various employers and consequent variety of income sources, are insured only on the basis of the income derived as employees, which means that they are universally underinsured with regard to pensions.

We therefore urge that any new legislation concerning such pensions should have special provisions for the physicians, basing their insurance on their total income as employees or, better still, that an independent pension system should be set up to meet the special conditions and needs of the physicians. This is only following the example of the special system that has already been set up for the employees of privately operated railroads.

Such a special system would make it possible to create a pension system for physicians based on their total income both in insurance and in private practice.

In this connection, we request that the physicians be excluded from compulsory sickness insurance for independent producers and professions; otherwise the effects on the medical profession will be very undesirable and will make the social security of the medical profession difficult or impossible, since the law as it now stands is already unsatisfactory and in no way provides for the standard of life on the medical level.

2. *Sickness Insurance Law for the "White Collar" Class.*[1]—This type of sickness insurance should be separated from insurance for wage workers and given its own administration and forms of organization.

The physicians, who for more than twenty years have been in the closest relation with the administration of insurance for the "white collar" class, during which time they have served that system with many sacrifices, recognize the necessity of the suggested reform. The standard of living of this class is so different as to demand a separate system which will include every person within this class; that standard also demands the right of the patient to a free choice of physician, which is now the fundamental premise of the existing contracts between the carriers of this form of insurance and the physicians. It is not necessary to repeat the theoretical arguments for this, because in the course of years its necessity has come to be thoroughly recognized. We would also urge that, in the reorganization of this type of insurance, greater emphasis should be given to general health care.

Experience has shown that the relations between the sickness insurance administration and the medical profession are the most important phases of sickness insurance. These relations cannot be regulated by law but must be based on contractual relations between the sickness insurance carriers and the medical

1. Privatbeamten, here translated as "white collar class," includes employees in the administrative and clerical positions in industry.

organization. We urge that this traditional and long tested practice be retained in any system of sickness insurance for the "white collar" class.

3. *New Laws Concerning Sickness Insurance in the Civil Service.*—Ten years' experience in the operation of the health fund of the civil service gives an opportunity to judge whether its legal foundations are to be approved or whether there is need for further reform.

A statistical appraisal conducted by the health fund and the medical organization has shown that the insurance premiums are fundamentally inadequate to meet the demands created by the increased expenditure of the health fund for compulsory activities—the large number of dependents and pensioners, the steady rise of morbidity, and the increased demand for the type of medical care made possible by the latest developments in medical science. In addition, the health fund has been compelled to meet the pressure, on the one side, of the demands of the insured and, on the other, of new medical standards which raise the cost of medical care above the earlier established legal bounds; this applies especially to dentistry, institutional care, and treatment at health resorts. These conditions have so unbalanced the relation of income and expenses as to make impossible a sound development of sickness insurance for civil service employees.

An increase in insurance contributions cannot be avoided in view of the increase in the number of cases of sickness and the improved quality of service demanded. Any new legislation must also give consideration to the possibility of reducing the circle of dependents entitled to medical care, the abolition of the right of the insured to refunds for expenditures for medical care by physicians not under contract—except in emergency, and the maintenance of the system of contributions for health care.

Since 1927 the development of sickness insurance in the civil service has been made possible through the contracts made with the medical organization. The medical profession is willing to cooperate in the further development of this branch of social insurance, provided their minimum but nevertheless absolutely necessary demands receive consideration. The foremost of these conditions is the maintenance of organized free choice of physician—a condition on which the value of the medical care and welfare of the insured depend.

4. *New Developments in Wage Workers' Social Insurance.*—Any changes in these laws should give special consideration to improvements in old age and invalidity insurance. In any movement to improve the law, in case of sickness the pensioner must have the right to medical care at the expense of the insurance administration.

The experience of physicians has taught them better than any one else that the majority of these pensioners are indigent and that the old age and invalidity pensions are not sufficient to satisfy even the most essential needs. If the pensioner becomes sick, he has no resources with which to pay for medical care, and he must either neglect the sickness or become a burden on the public medical service. Social justice demands the legal abolition of this situation.

We realize that the principal impulse toward a revision of social insurance legislation arises out of the economic crisis that threatens the financial balance of the Central Social Insurance Administration. We note also that this condition arises out of the increase in life expectation, which in turn is due to a decline in mortality. We fully recognize that a fundamental revision is necessary for the further development of old age and invalidity insurance and the prevention of economic collapse. Without attempting to advise the specialists dealing with these particular tasks, we do express our conviction that it would be injurious to try to save invalidity and old age insurance at the expense of sickness insurance. We feel that a further loading of sickness insurance would result in a deterioration of medical care.

5. *Legislation Affecting Insurance on the Czechoslovakian Railroads.*—The Railroad Ministry has announced that, either through a government order or a law, an independent carrier of sickness insurance for employees of the state-owned railroads will be established. The medical profession endorses this plan, in the belief that it may strengthen the good relations between the professional representatives and the insurance administration.

We are surprised, however, to find that this law conceals a section that may deprive some of the insured of their right to a free choice of physician—and this in spite of the fact that this form of sickness insurance has been continuously cited as an example of the success of an organized system of free choice in maintaining a financial balance. The professional association believes that there is an opportunity for the settlement of this question through collective bargaining between the insurance administration and the professional association.

6. *Legislation Concerning the Health Fund of Postal Employees.*—It is rumored that a law is being formulated for the postal employees' health fund, containing clauses which will interfere with the right of free choice, and we wish to raise a warning against any movement in this direction.

7. *New Legislation Concerning the Social Insurance of Independent Producers* (selb-

ständig erwerbenden personen).—The experience of the medical profession in the various forms of sickness insurance has led to the conviction that any such insurance that seeks to meet the unrestricted demands of the insured for free treatment with employed individual physicians exercises a harmful influence on the medical service, on the economic position of the physicians, and on the development of medical science.

The end result of any such an arrangement will always be a collision between the financial considerations of the insurance management and the legalized demands for service, which, with the present system of contributions, places the burden on the physicians and leads to a reduction in their medical effectiveness. The physician is so loaded down with clerical work in sickness insurance as to injure the health service. Not only does the establishment of districts with employed physicians lead to a leveling down of the medical service, but the general results of such an employee relation has aroused the objection of the medical profession in all countries to any further extension of sickness insurance. The International Medical Association has set forth the conditions for a successful administration of sickness insurance in a document that has come to be called the International Medical Charter. This sets forth as the fundamental demands of the medical profession the free choice of physician, maintenance of direct relations between physician and patient, no restrictions as to medical treatment, and respect for professional secrecy. The Czechoslovakian physicians stand firmly behind these fundamental demands and condition their cooperation with the sickness insurance carriers on adherence to these demands.

Press reports say that the commission now considering the new law concerning invalidity and old age insurance has already decided that this insurance shall be managed by the public health department through institutions with employed physicians. We insist that such regulations must be in accord with the medical principles of the International Charter.

We claim that the attitude of the Czechoslovakian medical profession is not in opposition to the social necessities of any citizen now subject to insurance; neither does it in any way prevent the introduction of any citizen into any desirable social institution but, rather, it is based on the conviction that the attainment of any such objectives must not sacrifice the scientific and economic independence of the medical profession.

III. GENERAL CONSIDERATIONS

1. *Social Insurance for Low Income Classes.*—The medical profession has always insisted that social insurance should be confined to persons of low income. This principle has not been observed in our social legislation but, instead, insurance has covered all employees without regard to the amount of their income. We are aware that this is done because insurance actuaries demand that risks should be as widely spread as possible.

Without discussing this theoretical principle, we can point out that a condition has been created that has enabled wealthy persons to take advantage of insurance. We raise this point because years of experience have satisfied us that wealthy private and public officials as a whole are not as good risks for sickness insurance as is commonly thought; on the contrary, the introduction of this social class has conferred a privilege on its members at the cost of the remaining insured.

2. *Determining the Amount of Insurance Premiums.*—Politicians, carriers of insurance, and wide circles of insured have come to realize that the main concern of sickness insurance is the medical service. Consequently, all forms of medical care in sickness insurance are being extended and the administration is developing its own institutions for health care (clinics, hospitals, sanatoriums and baths). The advance of medical science, which has made possible the treatment of illnesses that heretofore have been considered largely incurable (diabetes, tuberculosis and malignant tumors) and were previously not included in the medical care furnished under sickness insurance, has added to the cost of medical care. Increased knowledge by the insured of the possibility of medical treatment, aided by the educational work of private and public health institutions, has continuously increased the demand for medical services under insurance. The insurance administration must meet demands for new and necessary treatment, such as immunization, treatment of the teeth, and extended child care.

Statistics show that it is no longer possible to divide the insured into "good" risks that require no medical care but whose contributions will pay for treatment to the "bad" members. The inevitable result of sickness insurance is to make all the insured, without distinction, consumers of medical service in an increasing degree, so that it is now necessary to calculate that every insured person must pay enough to cover the expenditures for his medical service. This development was never expected and it was not taken into consideration in determining the amount of insurance premiums. Insurance systems are fixed, but the circumstances that determine their expenditures for medical treatment are in a state of continuous evolution. The result is an inevitable collision between the resources and demands—something that inevitably occurs within a definite period of time in every system of sickness insurance.

In the future, the calculation of insurance premiums must always take into consideration the continuous development of medical science and the health needs of the insured and must set up a special fund to meet such unexpected extraordinary expenditures as occur during epidemics.

Since these conditions make it impossible to maintain a financial balance in insurance, the only way out is to place a legal limit on the medical services which will correspond to the legally fixed contributions.

The physicians feel that they are justified in calling the attention of statesmen and legislators to this universal situation, since a previous disregard of these principles has most seriously affected the medical profession.

3. *Free Choice of Physician.*—Some of the proposed measures take away the legal right of certain groups of insured to the free choice of a physician in whom they have confidence. This applies especially to the present law concerning sickness insurance for employees of state railroads, the health fund for postal employees and, to a certain degree, to other proposed legislation. We hold it to be our duty to warn the insured and the medical profession before these proposals go into effect.

Free choice is essential because of its psychologic effects on certain definite phases of treatment, and any sort of regimentation in this regard will lead to deterioration of medical care. Free choice of physician is also essential to maintaining the technical standards of the medical profession. Since sickness insurance is today the only free entrance of the young physician into the profession, it is only through free choice that competition may be maintained, which is necessary in regulating medical standards. An examination of the results of any restriction or abolition of free choice is sufficient to convince any one that these practices are undemocratic, unsocial and reactionary. A final, inevitable result will be the forced restriction of the number of physicians to be trained by the four Czechoslovakian medical schools, since today, according to present conditions, medical practice is already greatly overcrowded.

IV. UNEMPLOYMENT INSURANCE

The government has not yet formally announced its intention of including unemployment insurance in our social insurance system; the statesmen are, however, almost unanimously agreed as to the necessity of this form of insurance as a means of reducing the cost of maintaining the unemployed.

It is not necessary for us to emphasize the importance to the insurance carriers, from an economic standpoint, of the insurance for the unemployed in case of sickness. It is inevitable that unemployment insurance will at least partially and involuntarily be substituted for sickness insurance. We wish to express our belief that unemployment insurance will help to solve the question of how to provide medical care to the unemployed and their dependents. It is impossible to maintain indefinitely the present situation, under which the physicians voluntarily and without payment give medical care to all the unemployed and their dependents —of which there are now more than a million. We can rightly assert that no other class, either here or abroad, has shown such self sacrifice as have the members of the Czechoslovakian medical profession.

V 19

Official Notes

COMING MEDICAL EXHIBITS

November 1- 7—Brazos County Fair, Bryan, Texas. Exhibit on information About Health.

November 1-15—Englewood Y. M. C. A., Chicago. Exhibit on Prevention of Accidents.

November 5- 6—Carnival, High School, Farmington, Minn., under the auspices of the Minnesota State Medical Association. Exhibit on Patent Medicines and Quackery.

November 8—Greenwood County and City Health Department, Greenwood, S. C. Exhibit on Information About Health.

November 8-13—Williams College, Department of Biology, Williamstown, Mass. Exhibit on the Human Factory.

November 10-24—Crippled Children's Committee of the local Rotary Club, Weatherford, Oklahoma. Exhibit on Prevention of Accidents.

RADIO BROADCASTS

The American Medical Association and the National Broadcasting Company present the fifth series of network health programs beginning Oct. 13, 1937, and running weekly through June 15, 1938. The programs will be presented over the Red network each Wednesday at 2 p. m. eastern standard time, 1 p. m. central standard time, 12 o'clock noon mountain standard time and 11 a. m. Pacific standard time.

The dates and topics of the broadcasts for the coming month are as follows:

Personal Health

November 3—Striving for Better Bodies: so-called physical defects; their recognition; what can be done about them.

Hygiene

November 10—Playing for Fun: health values and hazards in sports and recreation, including football.

November 17—Fresh Air, Fresh Clothes and Fresh Skin: ventilation; clothing; bathing.

November 24—Rest, Relaxation, Refreshment: all work and no play, or all play and no rest—bad for health.

The stations on the Red network are privileged to broadcast the program but, since it is a noncommercial program, they are not obligated to do so. Interest on the part of medical societies, women's auxiliaries and others may have weight with program directors of local stations. A personal visit to the program director might be advisable if the program is not being taken by a local station. This is an opportunity for the appropriate committees of county medical societies to indicate their interest in having this program broadcast in their community and to enlist the interest of other groups.

SYPHILIS: "A MOTION PICTURE CLINIC"

The following reservations have been made for the sound motion picture film on syphilis:

November 1-3—Texas Public Health Association, Dallas, Texas.
November 5—Honolulu County Medical, Society, Honolulu, Hawaii.
November 15—Columbus Academy of Medicine, Columbus, Ohio.

ADDRESSES BY OFFICIAL STAFF

DR. W. W. BAUER: November 2—Woman's Club, Davenport, Iowa.
November 4—Bye School Parent-Teacher Association, Oak Park, Ill.
November 5—Wisconsin Home Economics Association, Milwaukee.
November 6—La Crosse County Community Council, La Crosse, Wis.
November 12—Rush Medical College, Chicago.

DR. MORRIS FISHBEIN: November 2—Public Meeting, and Medical Society, Pensacola, Fla.
November 3-4—Gulf Coast Clinical Society, Biloxi, Miss.
November 4—Rotary Club, Gulfport, Miss.
November 12—Minnesota Public Health Association, Minneapolis.
November 16—Public Forum, Youngstown, Ohio.

DR. R. G. LELAND: November 1—University of Illinois School of Medicine.
November 5—Rush Medical College, Chicago.
November 9—Conference on Group Hospitalization, Jacksonville, Fla.

DR. PAUL A. TESCHNER: November 8—High School Parent-Teacher Association, Downers Grove, Ill.

Medical Economic Abstracts

HEALTH INSURANCE IN GREAT BRITAIN

Sir Henry B. Brackenbury, chairman of the Council of the British Medical Association, while on his way to New Zealand, where he is to act in an advisory capacity to the medical profession of that country, was extended fraternal hospitality during a brief stay in California in August.

Sir Henry made some informal comments on the way in which health insurance has been operating in England, Scotland and Wales. It appears from Sir Henry's statements that of about 50,000 physicians on Britain's registry, some 18,000 are so-called panel physicians, who care for about 18,000,000 employed citizens under the provisions of Britain's health insurance laws. The annual amount paid by the insurance system for each working man so insured is 13 shillings, of which the physician receives 9 shillings (about $2.25) to cover the cost of care for an individual. [This amounts to an average of about $2,250 a year for physicians doing an insurance practice.]

Sir Henry is decidedly enthusiastic about the working of the British system and declared that both patients and physicians are better served under the present conditions of insurance practice than under the conditions which existed before the advent of insurance.

When questioned as to the desirability of adopting a similar system in the United States, Sir Henry said that he did not feel that he had enough first-hand knowledge to express a worth while opinion. He did point out certain differences between the two countries which would make it difficult to introduce any system similar to the British one.

Some of the major factors which Sir Henry construed as having favored the successful development of the British health insurance system are as follows:

1. The homogeneity of the race in England, Scotland and Wales.

2. The homegeneity of the medical profession, as far as race, type and general professional training and outlooks are involved. A national standard of licensure for the United States might be questioned constitutionally on the ground that it would infringe on those police powers guaranteed by the constitution of the United States.

3. The existence in Britain of the permanent civil service personnel, which has continuous and real authority to carry out the acts and laws of Parliament, no matter what political group may name the nominal heads of the departments. Without such expert, impartial and nonpolitical supervision, Sir Henry was of the opinion that a health insurance system such as that which is operating in Britain would be enormously handicapped in the United States. He emphasized, as his personal opinion, that it was doubtful whether a successful health insurance system could be created in the United States with political forces in the major authority.

THE SICK POCKETBOOK

Under this heading Dr. R R. Spencer and Elizabeth G. Pritchard, in the October issue of the *Health Officer*, published by the United States Public Health Service, emphasize the fact, so often overlooked by advocates of sickness insurance and state medicine, that sickness and death may be more dependent on the income received than on the medical care furnished after disease has entered the picture. They say:

> For years, evidence has been piling up that social conditions such as food, clothing and housing—the quality and quantity of which necessarily parallel income—definitely influence not only the mortality of particular age groups and the height and weight of school children, but even the general mortality and morbidity. Even the lethality of disease seems to be influenced by family income. A sick pocketbook is being recognized as the boon companion of illness and disability.

Six separate studies illustrating this position are cited, showing that both acute and chronic diseases vary in number per thousand of the population inversely in relation to income. Another series of studies shows that certain occupations are especially characterized by high morbidity and mortality rates. Even within these occupations, income seems to be

the most significant factor. In the steel industry, for example, where exposure to "wide temperature changes, to gases and dust and smoke, to outdoor work in all kinds of weather, and strenuous labor" tends to increase the frequency of pneumonia, it was found that "for every 1,000 men earning less than $1,500 a year, there were more than 15 cases of pneumonia annually; their fellow workers with comparable exposures but earning *more* than $1,500 experienced about 10 attacks of pneumonia per 1,000 men." Housing and diet, the latter being especially dependent on income, are also basic factors in determining morbidity and mortality rates.

On the basis of these facts, the writers conclude:

These data illuminate again the close and cruel alliance between a sick pocketbook and disaster. The old problem as to whether the poor are poor because they are sick, or sick because they are poor has little meaning. Whether a person cannot support himself because he has tuberculosis, or whether he has tuberculosis because he was too poor to buy the education, the social sphere and living conditions which tend to prevent this condition, is beside the point. The fact remains that he is sick and he is poor. He and his fellows are with us. If we hope then to carry the fight against disease, we cannot ignore a study of the structure of the individual's social field, which, in turn, is largely determined by economic status.

NEGRO MORTALITY

That the high mortality among Negroes in the United States "is a direct consequence of unfavorable surroundings" is shown by Public Health Bulletin 235, "Mortality Among Southern Negroes Since 1920." Owing to the fact that some of the Southern states with a large Negro population have only recently entered the registration area and that "rural areas probably have a larger percentage of unregistered deaths than do urban areas," the reader is warned against possible inaccuracies in the statistics given. The annual rate of mortality from all causes (corrected for age) for 1921-1923 and 1931-1933 among colored and white in urban and rural areas of ten Southern and seven Northern states and the percentage change in mortality from 1922 to 1932 is shown in the accompanying table.

*Death Rate per Thousand Persons, Corrected for Age**

	10 Southern States						7 Northern States					
	Colored			White			Colored			White		
Year	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
1921-1923	16.22	23.68	14.32	9.91	12.73	9.11	20.08	20.64	18.90	11.02	11.91	9.87
1931-1933	15.82	21.95	13.64	9.15	11.66	8.20	17.45	17.27	18.59	9.32	9.94	8.39
Percentage Change:												
1922-1932	—2.5	—7.3	—4.7	—7.7	—8.4	—10.0	—13.1	—16.3	—1.6	—15.4	—16.5	—15.0

*The age distribution of the population is as of 1920 and 1930.

There is considerable variation in the relative proportion of the causes of death in the two races: Diseases of the heart and kidney are the two most important causes of death among both colored and white; the cancer rate, however, is lower among Negroes; the respiratory tuberculosis death rate is more than five times as high for Negroes as for whites.

"Two obvious factors would contribute to a relatively high rate of mortality among Negroes during early and middle adult ages; namely, a poorer economic status with less favorable living conditions and a higher percentage of the colored population engaged in manual labor. . . . Mortality from all causes for all ages has declined during the years 1922 to 1932 a total of 2.5 per cent among the colored and 7.7 per cent among the white. Each age group under 30 among colored and under 45 years among white showed a decline. Over those ages the recorded mortality increased for both races, the percentage increase being more for colored than for white. . . . Ratios of colored to white mortality at specific ages show that the largest relative differences between colored and white mortality occur in the ages 15 to 54 years."

EXCESSIVE PRESCRIBING UNDER INSURANCE

A discussion of the report of the chief medical officer for 1935 (*Public Health* **50**:112 [Jan.] 1937) contains the following comments on the excessive prescribing under the English insurance system:

In the section on the Insurance Medical Service, which provides medical benefit for nearly sixteen million people in England and Wales through some 16,600 medical practitioners, attention is again drawn to the great increase in the number of prescriptions issued, an increase which is not accounted for by any known fact relating to the incidence of disease in the country. Not only is there no contention that the expenditure of some two and a quarter million pounds on the provision of medicine is necessary or desirable, but on the contrary it has been repeatedly stated by representative practitioners that a very large proportion of the present physicking of the population is wholly unnecessary, and that if all doctors felt themselves free to order only such medicinal treatment as in their unfettered professional judgment they considered necessary, the total cost of prescribing would at once fall spectacularly—as far, some assert, as to half its present dimensions.

The most significant portion of this statement is in the final clause, implying that doctors do not "feel themselves free to order only such medicinal treatment as in their unfettered professional judgment they considered necessary." Sickness insurance has transferred the function of prescribing from the physician to the patient and has developed a system of self medication which must be encouraged by the physicians themselves if they are to retain their panel patients.

PROBLEM OF DROUGHT STATES

That the problem of medical care in the so-called dust bowl is closely wrapped up with the effects of economic changes on the population since 1930 is suggested by the facts presented in a report of the Works Progress Administration on "The People of the Drought States" (1937, p. 37):

From 1930 to 1936 there was also a slowing down of the growth of the total population throughout this area. Four of the states, South Dakota, Nebraska, Montana and New Mexico, lost in total number during these years. North Dakota, Kansas, Wyoming and Texas each sent more persons to other states than it received in return, but the excess of births over deaths was sufficient to maintain the numbers or to insure them small continued gains in total population. With rates of natural increase substantially above those for the United States as a whole, the Great Plains would have increased its population by 5 to 10 per cent between 1930 and 1936 had there been no inward or outward migration; and only an extensive movement from these states to others can account for the decreases in total population in some states as well as for the fact that the reported increases are so small.

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CONTENTS

	PAGE
REPORT ON FEDERAL LEGISLATION RELATING TO FOODS, DRUGS, DIAGNOSTIC AND THERAPEUTIC DEVICES AND COSMETICS	73B
OFFICIAL NOTES	83B
WOMAN'S AUXILIARY	84B
MEDICAL ECONOMIC ABSTRACTS	84B

Report on Federal Legislation Relating to Foods, Drugs, Diagnostic and Therapeutic Devices and Cosmetics

By the Bureau of Legal Medicine and Legislation, American Medical Association

The Physician's Interest in Such Legislation.—The adulteration and misbranding of foods, drugs, diagnostic and therapeutic devices and cosmetics are fraudulent and endanger public health. The success or failure of medical treatment may depend on the purity and potency of drugs and the accuracy of diagnostic and therapeutic devices. To protect the people and to guide importers, manufacturers, venders and distributors, standards of purity and rules governing the disclosure of the composition of such articles must be established by law. Tradition and ethics place on the physician the duty of contributing toward the enactment and enforcement of such legislation. No organized group speaks with respect to legislation of this character more disinterestedly and more nearly for the entire people than does the medical profession.

Federal and State Regulation.—Authority to regulate the importation, manufacture, distribution, sale and use of foods, drugs, diagnostic and therapeutic devices, and cosmetics is divided between the federal government and the governments of the several states. Primary authority and responsibility is and always has been vested not in the federal government but in the states. Through the constitution, however, the states surrendered to the federal government authority to regulate all traffic in the articles named, and in all other merchandise, in interstate and foreign commerce and in jurisdictions such as the District of Columbia over which the federal government has exclusive control, and the federal government assumes full responsibility for the regulation of such commerce. In recent years the federal government has been encroaching on the rights of the states with respect to the control of intrastate traffic and assuming, through the exercise of its taxing power, responsibilities that belong to the states. A federal tax is imposed, say, on oleomargarine or on cannabis, and then, under the pretext of promulgating regulations for collecting the tax, regulations are promulgated to govern in the most intimate way commerce in the article taxed, with little or no reference to actual tax collection. It is with federal regulation alone that this report is concerned. We are to consider only legislation general in character, based on the Food and Drugs Act of 1906, as amended.[1] It is under this act and under the meat inspection act, as amended,[2] that probably the greatest part of the federal activities in food and drug inspection is carried on. As yet the federal government is engaged in no specific activities in relation to commerce in diagnostic and therapeutic devices and in cosmetics.

FOOD AND DRUGS ACT OF 1906, AS AMENDED

The Food and Drugs Act of 1906 was passed after a bitter contest extending over many years, in which the American Medical Association played an important part. Importers, manufacturers and venders of foods and drugs contended against consumers and in the end they succeeded in molding the bill to meet their own ends and it was passed in that form. Those who were seeking legislation to protect the consumer finally accepted the emasculated bill in the hope that it could be perfected by amendments. More than a quarter century has passed, and while some strengthening amendments have been enacted the law is still far from perfect. This

1. U. S. Code, 1934 Ed., title 21, c. 1, sections 1-15.
2. U. S. Code, 1934 Ed., title 21, c. 4, sections 71-96.

experience should make cautious those who now may be tempted to yield to commercial interests in the enactment of pending legislation. Thirty years or more might well again elapse without perfecting by amendments a new law.

The Food and Drugs Act of 1906, as amended, fails in various ways to protect the consumer. It does not provide adequate obligatory standards of purity, potency, wholesomeness and labeling of foods and drugs. It provides no standards whatever for the soundness, safety, accuracy, potency and labeling of the many devices that are now used for the diagnosis, mitigation and cure of defect, deformity, injury and disease. It provides no standards for the purity, safety and labeling of cosmetics. It does provide loopholes through the permissible use of trade names, whereby even the standards prescribed for foods can be evaded. It provides no adequate means of arresting the distribution of food at its source when there is reason to believe that it was contaminated there by dangerous bacteria. Finally, the Food and Drugs Act of 1906, as amended, is impotent against false or fraudulent advertising of foods, drugs, diagnostic and therapeutic devices and cosmetics, through newspapers, billboards, the radio and any of the other channels open to advertisers.

We cannot discuss in detail all the defects in the Food and Drugs Act of 1906, as amended. We can only survey here some of its more important defects as they relate to legislation now pending in Congress. First we shall discuss the development of the outstanding pending legislation.

DEVELOPMENT OF PENDING BILLS TO IMPROVE FOOD AND DRUGS LEGISLATION

The first serious legislative attempt to correct the defects in the Food and Drugs Act of 1906, as amended, was the introduction of the so-called Tugwell bill [3] in the Seventy-Third Congress by Senator Royal S. Copeland, which bill had been drafted in the Department of Agriculture under the direction of Rexford G. Tugwell, then Assistant Secretary of Agriculture. The Tugwell bill proposed, in effect, a dictatorship over all industries connected with the production and distribution of foods, drugs, diagnostic and therapeutic devices and cosmetics. As neither the industries concerned nor the consumer had been taken into the confidence of the Assistant Secretary while the bill was being prepared, its introduction was followed by a flood of protests and criticism. The American Medical Association neither supported nor opposed the Tugwell bill. The Association was in sympathy with the objectives of the bill but it was realized that the establishment of a dictatorship for the industries concerned would tend toward the establishment of similar dictatorships for other industries and even for such professions as could be brought under federal control through the federal taxing power or through federal authority over interstate and foreign commerce. The Tugwell bill failed. A mistake was made by its proponents in grasping for so much authority. If bills had been offered proposing to perfect the existing law by amending it, it is probable that some of the amendments proposed, if not all, would have been enacted. The Tugwell legislative pattern, having been set, has been followed in a modified form ever since. Even though the contents of a bill bear little resemblance to the Tugwell bill, the antagonism aroused by the original bill still crops out when federal food and drug legislation is under consideration.

In the congress next following that in which the Tugwell bill failed of enactment, seven bills to regulate foods, drugs, diagnostic and therapeutic devices and cosmetics were introduced, and all of them failed of passage. One [4] was passed by both houses of Congress, but the two branches of Congress could not agree through their conference committees on any adjustment of the differences between the bill as passed by the Senate and the same bill as passed by the House. All of these differences were reconciled, it is understood, except the one that related to authority over the advertising of foods, drugs, diagnostic and therapeutic devices and cosmetics. The bill as passed by the Senate proposed to vest such authority in the Department of Agriculture, while the bill as passed by the House of Representatives proposed to vest it in the Federal Trade Commission. Because of that one difference, apparently, the bill failed of enactment, which was perhaps not unfortunate, for the bill gave no promise of being any more effective than the law that it was intended to supplant. This failure, however, does not presage success for pending legislation in the current congress, for the Senate, in the bill that it has passed,[5] proposes to vest authority over advertising in the Department of Agriculture while the Committee on Interstate and Foreign Commerce of the House of Representatives has rejected that plan and recommended in a bill that it has reported to the House [6] that jurisdiction be vested in the Federal Trade Commission.

In the current congress, the Seventy-Fifth, nine bills relating to foods, drugs, diagnostic and therapeutic devices and cosmetics have been introduced and are still pending. The only bill introduced in the Senate was S. 5, introduced by Senator Copeland. That bill was passed by the Senate March 9, 1937. It has been before the House of Representatives ever since.

3. S. 1944, Seventy-Third Congress.

4. S. 5, Seventy-Fourth Congress.
5. S. 5, Seventy-Fifth Congress.
6. S. 1077, Seventy-Fifth Congress.

In the House of Representatives, all except one of the bills pertaining to interstate and foreign commerce in foods, drugs, diagnostic and therapeutic devices and cosmetics, including the Copeland bill, are still before the Committee on Interstate and Foreign Commerce, of which Representative Clarence F. Lea of California is chairman. The one bill that is no longer before the committee is sometimes referred to as the Wheeler-Lea Federal Trade Commission bill. This bill, as passed by the Senate and as it came before the House, covered all kinds of merchandise, without specific reference to any one kind, but the House Committee on Interstate and Foreign Commerce in reporting to the House converted it into a foods, drugs, diagnostic and therapeutic device and cosmetic bill to such an extent as to necessitate its consideration in this report.

It is not practicable to discuss here every bill of this nature pending in the House of Representatives. Discussion will be limited to the two bills already passed by the Senate and now pending in the House, namely:

S. 5. An Act to prevent the adulteration, misbranding, and false advertisement of food, drugs, devices, and cosmetics in interstate, foreign, and other commerce subject to the jurisdiction of the United States, for the purposes of safeguarding the public health, preventing deceit upon the purchasing public, and for other purposes, commonly referred to as the Copeland food, drug, device, and cosmetic bill.

S. 1077. An Act to amend the Act creating the Federal Trade Commission, to define its powers and duties, and for other purposes, sometimes referred to as the Wheeler-Lea Federal Trade Commission bill.

The House Committee on Interstate and Foreign Commerce, in reporting the Wheeler-Lea Federal Trade Commission bill to the House, singled out foods, drugs, diagnostic and therapeutic devices and cosmetics as merchandise requiring special treatment. Under the bill as passed by the Senate, the Federal Trade Commission was to have exactly the same jurisdiction over foods, drugs, diagnostic and therapeutic devices and cosmetics that it was to have over all other merchandise. If its advertising constitutes an unfair or deceptive act or practice in interstate or foreign commerce, the Federal Trade Commission was to have authority to proceed against the advertiser, but the bill laid down no rules to guide the commission in determining what advertising constitutes an unfair and deceptive act or practice. This seems to have been regarded by the House Committee on Interstate and Foreign Commerce as a sufficient rule for all kinds of merchandise except foods, drugs, diagnostic and therapeutic devices and cosmetics. With respect to the advertising of merchandise within those categories, the committee has proposed elaborate standards and special procedure. It may well be questioned whether under the rule governing the construction of statutes, *expressio unius est exclusio alterius*, it may not be contended that, by including in the Wheeler-Lea bill provisions governing specifically only the advertising of foods, drugs, diagnostic and therapeutic devices and cosmetics, the bill may not be construed as excluding false and fraudulent advertising of all other merchandise from consideration by the Federal Trade Commission as an unfair or deceptive act or practice within the meaning of the law.

Committee Print No. 3, S. 5, Copeland Food, Drugs, Diagnostic and Therapeutic Devices and Cosmetics Bill.—Before we proceed to an analysis of the Copeland food, drugs, diagnostic and therapeutic devices and cosmetics bill, the reader must be warned against the confusion that may arise from the publicity given by the House Committee on Interstate and Foreign Commerce to Committee Print No. 3, Aug. 19, 1937, of the Copeland bill, then pending before one of its subcommittees. The publicity given to Committee Print No. 3 was designed, it is understood, to promote a wide discussion of proposals under consideration by the subcommittee, in order that the committee might have the benefit of the views of interested parties concerning them. Unfortunately, the committee print does not show what part of it is taken from the Copeland bill as it passed the Senate and what part has been put in by the subcommittee. Readers of Committee Print No. 3 must be careful, therefore, not to approve or condemn the Copeland bill because of anything they read in Committee Print No. 3.

COMPARISON OF PENDING BILLS WITH PRESENT FOOD AND DRUGS ACT

Standards for Drugs.—One of the outstanding defects in the Food and Drugs Act of 1906, as amended, is its failure to fix obligatory legal standards for drugs or to establish some way in which such standards can be fixed. It purports to adopt the standards for medicines and preparations recognized in the United States Pharmacopeia, published by the United States Pharmacopeial Convention, Inc., and those recognized in the National Formulary, published by the American Pharmaceutical Association, Inc. The act, passed in 1906, attempted to adopt, not the standards then in existence in the United States Pharmacopeia and the National Formulary, but all standards that might at any time thereafter be incorporated in those books by their publishers, two volunteer, private, self-governing organizations. Obviously, the Congress of the United States cannot delegate its legislative authority to fix standards for the whole people to any such private organizations. With a view, it is said, to saving the constitutionality of this pseudo delegation of authority, however, the Congress authorized every one engaged in the importation, manu-

facture or sale of drugs to disregard pharmacopeia and formulary standards and to set up any standards that he might see fit, by the following proviso in the act of 1906:

"Provided, that no drug defined in the United States Pharmacopoeia or the National Formulary shall be deemed to be adulterated under this provision if the standard of strength, quality, or purity be plainly stated upon the bottle, box, or other container thereof, although the standard may differ from that determined by the test laid down in the United States Pharmacopoeia or National Formulary." *U. S. Code, 1934 Ed., Title 21, Ch. 1, Sec. 8, In Case of Drugs: First.*

The Food and Drugs Act of 1906, as amended, is innocent, too, of any obligatory standards for drugs that are sold under or by a name *not* recognized in the United States Pharmacopeia or National Formulary. It provides that such a drug is to be deemed adulterated—

"Second. If its strength or purity fall below the professed standard or quality under which it is sold." *U. S. Code, 1934 Ed., Title 21, Ch. 1, Sec. 8, In Case of Drugs: Second.*

Nowhere, however, does the act require any importer, manufacturer or vender of any drug *not* sold under or by a name recognized in the United States Pharmacopeia or the National Formulary to profess either on the label or in any other matter the "standard or quality under which it is sold," beyond stating on the label—

"the quantity or proportion of any alcohol, morphine, opium, cocaine, heroin, alpha or beta eucaine, chloroform, cannabis indica, chloral hydrate, or acetanilid, or any derivative or preparation of any such substances contained therein." *U. S. Code, 1934 Ed., Title 21, Ch. 1, Sec. 10. In Case of Drugs: Second.*

The Copeland food, drugs, diagnostic and therapeutic devices and cosmetics bill, S. 5, as it passed the Senate, does not propose to correct the defects in the Food and Drugs Act of 1906, as amended, pointed out. It does not propose to set up adequate legal drug standards or to establish machinery by which such standards can be established. The establishment of standards for drugs may be more difficult than the establishment of standards for foods, which seems to be provided for in section 10 of the Copeland bill, but the fact that the remedy is difficult is no sufficient excuse for avoiding it. But, as a matter of fact, the Copeland bill tends to make the situation worse than it now is. It proposes to add a third private legislative group, the American Institute of Homeopathy, Inc., to the two to which the Food and Drugs Act of 1906, as amended, now assumes to delegate authority to fix legal standards for drugs. The Copeland bill proposes moreover to authorize these three bodies even to alter, amend or abolish such supposedly legal drug standards as may be in force under the act and to make new ones at their pleasure at any time, even without previous notice to the public or to interested importers, manufacturers or venders of drugs or to the users of them, such as physicians, and even without the publication of the altered, amended or new regulations elsewhere than in one of the so-called supplements to the United States Pharmacopeia, the Homeopathic Pharmacopeia of the United States, and the National Formulary. These supplements need have no circulation whatever outside the office of the publisher. Probably, however, they will be widely circulated, for every importer, manufacturer and vender of drugs, and every practicing physician and veterinarian, will have to subscribe for some or all of them, in order to know from day to day what the legal standards for drugs in the United States are.

In view of the proposal to maintain and even to enlarge the present bizarre plan for fixing standards for any drug the name of which is introduced into the United States Pharmacopeia, the Homeopathic Pharmacopeia of the United States or the National Formulary, or into any supplement of any of them, it is not strange that the Copeland bill should provide that no one need conform to any of the standards therein proposed. The Copeland bill is as bad in this respect as is the existing law, for it specifically provides—

"No drug defined in an official compendium [the term 'compendium' including the United States Pharmacopeia, the Homeopathic Pharmacopeia of the United States, and the National Formulary, and all supplements to them] shall be deemed to be adulterated under this paragraph because it differs from the standard of strength, quality, or purity therefor set forth in an official compendium, *if its standard of strength, quality, or purity be plainly stated on its label.*" *S. 5, Sec. 16 (b), 25: 15-19.*

In short, every importer, manufacturer and vender of drugs is to be at liberty, as he now is, to make his own standards of strength, quality or purity for all drugs whose names are defined in the United States Pharmacopeia, the Homeopathic Pharmacopeia of the United States or the National Formulary, even while using names stated in one or the other of those pharmacopeias or in the formulary.

The Copeland bill, as it passed the Senate, proposes but little to correct the defect in the Food and Drugs Act of 1906, as amended, with respect to drugs *not sold under names* recognized in the United States Pharmacopeia, the Homeopathic Pharmacopeia of the United States or the National Formulary. The bill proposes only that such drugs must conform in strength, quality and purity to the strength, quality and purity which they purport or are represented to possess. In that respect the bill does not differ from the law now in force. And the Copeland bill, like the Food and Drugs Act of 1906, as amended, does not require that the manufacturer, distributor or vender of any drug not sold under a pharmacopeial or formulary name represent that it possesses any strength, quality

or purity whatever. The Copeland bill, however, as it passed the Senate, does impose certain duties with respect to the labeling of drugs that should contribute largely toward the protection of the public.

Misbranding of Drugs.—The Food and Drugs Act of 1906, as amended, provides that the term "misbranded," as used in the act, shall apply to all drugs the package or label of which bears any statement, design or device regarding such article, or the ingredients or substances contained therein which shall be false or misleading in any particular, and to any drug product which is falsely branded as to the state, territory or country in which it is manufactured or produced. After the courts had decided that that language did not cover statements, designs or devices with respect to curative or therapeutic effects, an amendment, sometimes referred to as the Shirley amendment, was enacted, reading as follows:

"Third. If its package or label shall bear or contain any statement, design, or device regarding the curative or therapeutic effect of such article or any of the ingredients or substances contained therein, which is false *and* fraudulent." *U. S. Code, 1934 Ed., Title 21, Ch. 1, Sec. 10. In Case of Drugs: Third.*

Since a statement, design or device is not legally "fraudulent" unless it is used with intent to deceive, false statements, designs and devices regarding the curative or therapeutic effect of a drug or of any of the ingredients or substances contained therein may be made on the package or label with impunity, provided only that it cannot be proved that the importer, manufacturer or vender knew of their falsity and used them with intent to deceive. The Copeland foods, drugs, diagnostic and therapeutic devices and cosmetics bill, as it passed the Senate, by its provisions regarding labeling, will go a long way toward correcting this defect in the present law.

Diagnostic and Therapeutic Devices.—The Food and Drugs Act of 1906, as amended, is silent as to the construction, safety, accuracy, potency and labeling of devices used for the diagnosis, cure, treatment or prevention of disease. The Copeland bill, as it passed the Senate, makes a start toward the legal supervision and control of such devices in interstate and foreign commerce, but it does not carry through. Under the Copeland bill the "adulteration" or misbranding of any diagnostic or therapeutic device in interstate commerce, the introduction into and the receipt in interstate commerce of any "adulterated" or misbranded diagnostic or therapeutic device, the advertising in interstate and foreign commerce of any diagnostic or therapeutic device with the claim that it has any therapeutic effect in the treatment of Bright's disease and certain other named diseases, and certain other activities with respect to such devices are declared to be unlawful. But nowhere does the bill propose the establishment of any standard by which any prospective user of a diagnostic or therapeutic device, or any law enforcement officer, can determine whether it is or is not "adulterated" within the meaning of the law, nor does the bill propose the establishment of any machinery whereby any such standards can be set up.

The Copeland bill does make certain requirements with respect to the labeling of diagnostic and therapeutic devices, but in this connection it is necessary to recognize the distinction drawn by the bill between a "label" and "labeling":

"(m) The term 'label' means the principal display or displays of written, printed, or graphic matter (1) upon any food, drug, device, or cosmetic, or the immediate container thereof, and (2) upon the outside container or wrapper, if any there be, of the retail package of any food, drug, device, or cosmetic.

"(n) The term *'labeling'* includes all *labels* and all written, printed, and graphic matter, in any form whatsoever, accompanying any food, drug, device, or cosmetic." *S. 5, Sec. 2 (m) and (n), 5: 6-14.*

The bill does not require any labeling of diagnostic and therapeutic devices beyond a mere label, and it requires a label only when the device is "in package form." The Copeland bill provides:

"Sec. 17. A drug or device shall be deemed to be misbranded . . .

"(c) *If in package form* unless it bears a label containing (1) the name and place of business of the manufacturer, packer, seller, or distributor; and (2) an accurate statement of the quantity of the contents in terms of weight, measure, or numerical count: Provided, That under subdivision (2) of this paragraph reasonable variations shall be permitted, and exemptions as to small packages shall be established, by regulations prescribed by the Secretary [of Agriculture]." *S. 5, Sec. 17 (c), 26: 20 to 27: 2.*

Nothing need be shown even when a device is labeled as to the character, accuracy, type or potency of the device. Moreover, the fact that a "device" does not conform to representations concerning it made in an advertisement by print or other graphic display or by radio will not make it "misbranded" under the Copeland bill, unless the discrepancy between the advertisement and the properties of the device is such as to make it "dangerous to health when used in the dosage, or with the frequency or duration, prescribed or recommended in the labeling or advertisement thereof." The Copeland bill is seriously defective in its provisions relating to diagnostic and therapeutic devices.

Misbranding of Foods.—The Food and Drugs Act of 1906, as amended, after setting up certain requirements with respect to the labeling of foods generally, says:

"Provided, That an article of food which does not contain any added poisonous or deleterious ingredients

shall *not* be deemed to be adulterated or misbranded in the following cases:

"First. In the case of mixtures or compounds which may be now or from time to time hereafter known as articles of food, *under their own distinctive names*, and not an imitation of or offered for sale under the distinctive name of another article, if the name be accompanied on the same label or brand with a statement of the place where said article has been manufactured or produced.

"Second. In the case of articles labeled, branded, or tagged so as to plainly indicate that they are *compounds, imitations, or blends*, and the word 'compound,' 'imitation,' or 'blend,' as the case may be, is plainly stated on the package in which it is offered for sale: Provided, That the term blend as used herein shall be construed to mean a mixture of like substances, not excluding harmless coloring or flavoring ingredients used for the purpose of coloring and flavoring only. Nothing in sections 1 to 15, inclusive, of this title [The Food and Drugs Act of 1906, as amended] shall be construed as requiring or compelling proprietors or manufacturers of proprietary foods which contain no unwholesome added ingredient to disclose their trade formulas, except in so far as the provisions of such sections may require to secure freedom from adulteration or misbranding." *U. S. Code, 1934 Ed., Title 21, Ch. 1, Sec. 10, In the Case of Food: Fourth.*

Obviously, by the use of "distinctive names," and by marking foods as "compounds," "imitations" or "blends," importers, manufacturers and venders can go a long way toward evading the requirements of the act as far as it relates to the adulteration and misbranding of foods. One of the best features of the Copeland bill, S. 5, as it passed the Senate, is its proposal to prevent resort to such practices as a means for defeating the law.

Under the Copeland bill, foods for which definitions and standards of identity have been established must conform to such definitions and standards. Foods for which no such definitions and standards have been fixed must contain on their labels—

"(1) the common or usual name of the food, if any there be, and

"(2) In case it is fabricated from two or more ingredients, the common or usual name of each such ingredient; except that spices, flavors, and colorings, other than those sold as such, may be designated as spices, flavors, and colorings without naming each: And provided, That, to the extent that compliance with the requirements of subdivision (2) of this paragraph is impracticable, or results in deception or unfair competition, exemptions shall be established by regulations promulgated by the Secretary [of Agriculture]." *S. 5, Sec. 12(i), 20: 14-24.*

Other labeling requirements with respect to foods proposed in the Copeland bill will enlighten the consumer concerning his purchases and what he eats and will facilitate the enforcement of the proposed law by the authorities.

Foods Contaminated by Dangerous Micro-Organisms.—The Food and Drugs Act of 1906, as amended, defined food as adulterated, and prohibited it in interstate and foreign commerce, if it contained any *added* poisonous or other *added* deleterious ingredient which might render such article injurious to health; or if it consisted in whole or in part of a filthy or decomposed animal or vegetable substance or any portion of an animal unfit for food, whether manufactured or not; or if it was the product of a diseased animal or one that had died otherwise than by slaughter. Any of these conditions might be traced to micro-organisms, but proof of such "adulteration" is often not available until harm has been done. To correct this condition, the Copeland bill, as it passed the Senate, proposes a system of "emergency permit control," possibly best defined in the words of the bill itself:

"Sec. 13 (a) Whenever the Secretary [of Agriculture] finds after investigation that the distribution in interstate commerce of any class of food may, *by reason of contamination with micro-organisms during the manufacture, processing, or packing thereof in any locality*, be injurious to health, and that such injurious nature cannot be adequately determined after such articles have entered interstate commerce, he is then, and in such case only, authorized to promulgate regulations providing for the issuance, to manufacturers, processors, or packers of such class of food in such locality, of permits to which shall be attached such conditions governing the manufacture, processing, or packing of such class of food, for such temporary period of time, as may be necessary to protect the public health, and after the effective date of such regulations, and during such temporary period, no person shall introduce into interstate commerce any such food manufactured, processed, or packed by any such manufacturer, processor, or packer unless such manufacturer, processor, or packer holds a permit issued by the Secretary as provided by such regulations." *S. 5, Sec. 13 (a), 21: 14 to 22: 9.*

Probably action under the authority described for emergency permit control will seldom be exercised, but certainly the authority should be available for use in case of need.

Cosmetics.—The Food and Drugs Act of 1906, as amended, does not apply to cosmetics. Cosmetics did not play so important a part in life when that bill was enacted as they play today. Taking up cosmetics as preparations calling for regulation by Congress, the Copeland bill, as it passed the Senate, defines the term "cosmetics," as follows:

"(j) The term 'cosmetic' includes all substances and preparations intended for cleansing, or altering the appearance of, or promoting the attractiveness of, the person, except that such term shall not include soaps intended for no cosmetic uses other than those resulting from cleansing." *S. 5, Sec. 2 (j), 4: 14-18.*

The bill contains definitions of "adulteration" and "misbranding," as applied to cosmetics, all carefully worked out apparently with the aid of importers, manufacturers, venders and commercial users of cosmetics. It may nevertheless be expected at least to mitigate the chances of injury resulting from the use of cosmetics.

Advertising.—The Food and Drug Act of 1906, as amended, does not prohibit false or fraud-

ulent advertising of foods and drugs. Of course, it is silent as to false and fraudulent advertising of diagnostic and therapeutic devices and of cosmetics, for the act does not relate to them in any way. The Copeland bill, as it passed the Senate, proposes to reduce so far as may be possible false and fraudulent advertising in the fields named. To that end, elaborate regulations have been written into the bill.

The regulations proposed in the Copeland bill as it passed the Senate, to govern advertising, seem hardly open to serious objection by any one who is willing to deal fairly with the public in the exploitation of his merchandise. Nevertheless, the Wheeler-Lea Federal Trade Commission bill, S. 1077, by a committee amendment proposes to enact vague standards, difficult of interpretation and effective application in particular cases and to vest supervision and control of advertising in the Federal Trade Commission. If this is intended, as it apparently is, to vest authority over the advertising of foods, drugs, diagnostic and therapeutic devices and cosmetics in the Federal Trade Commission, to the exclusion of the Secretary of Agriculture, the amendment has nothing to commend it. The Department of Agriculture should be authorized to enforce by ordinary criminal and injunctive processes the laws against the false and fraudulent advertising of foods, drugs, diagnostic and therapeutic devices and cosmetics. The Federal Trade Commission might well continue to operate against them within its present jurisdiction and by processes that are peculiar to the commission. Any other plan is likely to diminish the effectiveness of advertising control.

Opposition to legislation proposing to vest in the Federal Trade Commission the exclusive duty of enforcing the proposed law against the false and fraudulent advertising of foods, drugs, diagnostic and therapeutic devices and cosmetics is not to be construed as in any way derogatory to the commission. It is based on three circumstances:

1. On the weakening of the enforcement of the proposed foods, drugs, diagnostic and therapeutic devices and cosmetics act that must result if control over advertising be made the duty of an agency of the government other than that agency that is charged with the enforcement of the act generally.

2. On the impracticability of the standard for advertising stated in the Wheeler-Lea Federal Trade Commission bill.

3. On the unsuitability of the processes of the Federal Trade Commission for the enforcement of such legislation.

Effect of Division of Responsibility as to Enforcement Between Department of Agriculture and Federal Trade Commission.—If the Federal Trade Commission is responsible for the enforcement of the proposed law as far as it relates to advertising, and the Department of Agriculture is responsible for its enforcement in every other respect, duplication of efforts will result. Under such divided responsibility, a given amount of money and effort would not produce the same efficiency of enforcement as would result if the duties of enforcement were entrusted to one agency. If the Federal Trade Commission is to maintain a corps of inspectors, clerks and attorneys to enforce the advertising provisions of the law relating to the advertising of foods, drugs, diagnostic and therapeutic devices and cosmetics generally and is no longer to limit its activities to advertising in which unfair competition within the industry is the point at issue, those inspectors, clerks and attorneys will be constantly at work in the same areas in which corresponding groups of employees in the service of the Department of Agriculture are active, and the members of the two groups will be constantly weaving in and out over the highways of commerce. If the Federal Trade Commission is to have its own chemical, physical and biologic laboratories for the analysis of foods, drugs and cosmetics and for the testing of diagnostic and therapeutic devices, those laboratories will duplicate the work of simliar laboratories in the service of the Department of Agriculture. As far as the Federal Trade Commission is concerned, the conclusions of its own laboratories will be useless except as they relate to advertising. Yet if the Federal Trade Commission, after segregating the findings relating to advertising, turns the residue over to the Department of Agriculture for its use in enforcing provisions of the law not relating to advertising, the inspectors and analysts of the Federal Trade Commission will be at the beck and call of the Department of Agriculture, to attend hearings and to testify in court proceedings. A similar situation will exist in the Department of Agriculture if the results of its inspections and analyses that may be of use to the Federal Trade Commission in enforcing the advertising provisions of the law are turned over to the commission for its use; the inspectors and analysts in the service of the Department of Agriculture will have to be at the beck and call of the Federal Trade Commission, with resultant interference with their departmental duties. If there is no such interchange of information concerning residual laboratory findings, there will be a gross waste of money and effort.

It may be said that the laboratories of the Department of Agriculture are and for many years have been at the service of the Federal Trade Commission and have been used for its purposes. The extent to which this has interfered with the work of the Department of Agriculture is not known, but it is clear that the volume of the work now done by the Department of Agriculture for the Federal Trade Com-

mission with respect to the advertising of foods, drugs, diagnostic and therapeutic devices and cosmetics is insignificant as compared with the volume of work that will have to be done in event of the enactment of the Wheeler-Lea Federal Trade Commission bill in the form in which it has been recommended for enactment by the House Committee on Interstate and Foreign Commerce, unless the Federal Trade Commission has its own laboratories.

With a division of authority between the Federal Trade Commission and the Department of Agriculture such as is proposed, the line of demarcation between "advertising" and "labeling" may lead to absurd situations. The Copeland bill, as it passed the Senate, defines the term "labeling" as follows:

"(n) The term 'labeling' includes all labels and all written, printed, and graphic matter, in any form whatsoever, *accompanying any food, drug, device, or cosmetic.*" *S. 5, Sec. 2 (n), 5: 12-14.*

The Wheeler-Lea Federal Trade Commission bill, S. 1077, as reported to the House Committee on Interstate and Foreign Commerce, does not define the term "advertisement," but it defines the term "false advertisement" as follows:

"(a) The term 'false advertisement' means an advertisement, *other than labeling,* which is misleading in a material respect; . . ." *S. 1077, as reported by House Committee on Interstate and Foreign Commerce, August 19, 1937, Sec. 15 (a), 27: 12-14.*

All written, printed and graphic matter accompanying a food, drug, diagnostic and therapeutic device or cosmetic is therefore presumably to be within the jurisdiction of the Department of Agriculture. All representations disseminated for the purpose of inducing the purchase of foods, drugs, diagnostic and therapeutic devices or cosmetics but not accompanying them are to be under the jurisdiction of the Federal Trade Commission. The representations made by an importer, manufacturer or vender on bill boards, in newspapers and periodicals, over the radio and on posters and empty cartons and other empty containers, distributed in interstate and foreign commerce for advertising purposes, are therefore to come under the exclusive control of the Federal Trade Commission, if they do not accompany the food, drug, device or cosmetic to which they relate. If such advertising material does accompany the food, drug, diagnostic or therapeutic device or cosmetic to which it relates, the Federal Trade Commission will have no jurisdiction.

Impracticability of Proposed Standards for Determining Fraudulent Character of Advertising.—If the supervision of labeling is vested in the Department of Agriculture and the supervision of advertising is vested in the Federal Trade Commission, as seems to be the intent of the Wheeler-Lea Federal Trade Commission bill, differences in personal equations between the officers of the Department of Agriculture and the members of the Federal Trade Commission would be sufficient to create confusion, even if the rules under which the two agencies operated were identical. This bill, however, as reported by the House Committee on Interstate and Foreign Commerce, proposes to create a more difficult situation by establishing a rule for the guidance of the Federal Trade Commission with respect to advertising, materially different from the rules proposed in the Copeland bill for the guidance of the Department of Agriculture with respect to labeling. Furthermore, the rules that the Wheeler-Lea bill proposes to lay down for the guidance of the Federal Trade Commission are so indefinite and so difficult of construction as to be practically worthless as a guide for the advertiser, the Federal Trade Commission or the courts. Their inadequacy as a rule of law cannot be better stated than by printing the rule itself:

"(a) The term 'false advertisement' means an advertisement, *other than labeling,* which is misleading in a material respect; and in determining whether any advertisement is misleading, there shall be taken into account (among other things) not only representations made or suggested by statement, word, design, device, sound, or any combination thereof, but also the extent to which the advertisement fails to reveal facts material in the light of such representations or material with respect to consequences which may result from the use of the commodity to which the advertisement relates; but if, at the time of the dissemination of the advertisement, there exists a substantial difference of opinion, among experts qualified by scientific training and experience, as to the truth of a representation, the advertisement shall not be considered misleading on account of such representation, if it states clearly and prominently the fact of such difference of opinion. Nothing in this paragraph shall be construed as requiring the making of such statement as to difference of opinion; and failure to so state the fact of such difference of opinion shall not relieve the Government of the burden of establishing the misleading character of the representation. No advertisement of a drug shall be deemed to be false if it is disseminated only to members of the medical profession, contains no false representation of a material fact, and includes, or is accompanied in each instance by truthful disclosure of, the formula showing quantitatively each ingredient of such drug." *S. 1077, Sec. 15 (a), 27: 12 to 28: 12.*

Any one who contrasts the adventures into physics, chemistry and biology, and even psychology, proposed by the rule stated from the Wheeler-Lea bill as reported by the House Committee on Interstate and Foreign Commerce, with the direct action proposed in the clear-cut provisions of the Copeland bill as passed by the Senate, will see the immeasurably greater protection to the consumer proposed by the Copeland bill. That bill sets forth definite standards of honesty and truthfulness which no importer, manufacturer or vender need have trouble in understanding and with which he need have no trouble in complying if he has in mind the interests of the consumer.

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In support of this statement, attention is called to the provisions of the Copeland bill (which have no parallel in the Wheeler-Lea Federal Trade Commission bill) intended to prevent some of the most cruel advertising in use and to limit the activities of some of the most brutal quacks, which read as follows:

"Sec. 3. The following acts and the causing thereof are hereby prohibited: . . .

"(d) (1) The dissemination, by United States mails, or in interstate commerce in any manner or by any means, including radio broadcast, of any advertisement which represents any drug, or device to have any therapeutic effect in the treatment of Bright's disease, cancer, tuberculosis, poliomyelitis (infantile paralysis), venereal diseases, or heart or vascular diseases, unless such advertisement, not in violation of subdivision (e) of this section, is disseminated only to members of the medical, dental, and pharmaceutical professions and/or appears only in the scientific periodicals of those professions.

"(2) The dissemination, in any manner or by any means, for the purpose of directly or indirectly inducing interstate commerce in any drug or device, of any advertisement which represents such drug or device to have any therapeutic effect in the tre iment of Bright's disease, cancer, tuberculosis, poliomyelitis (infantile paralysis), venereal diseases, or heart or vascular diseases, unless such advertisement, not in violation of subdivision (e) of this section, is disseminated only to members of the medical, dental, and pharmaceutical professions or appears only in the scientific periodicals of those professions.

"(e) (1) The dissemination, by United States mails, or in interstate commerce in any manner, or by any means, including radio broadcast, of any advertisement which contains any representation regarding any food, drug, device, or cosmetic, or the ingredients thereof, or the substances therein, or the identity, strength, quality, purity, quantity, origin, source, harmlessness, or safety therof, or the nutritional, dietary, curative, therapeutic, preventive, diagnostic, or beneficial effects thereof, or the safety or efficacy of the dosage, frequency, or duration of use pertaining thereto, which is false or misleading in any particular." *S. 5, Sec. 3 (d) and (e) (1), 5: 23-24 and 6: 10 to 7: 6.*

Insufficiency of Proposed Federal Trade Commission Procedure for Suppression of Fraudulent Advertising.—The methods of enforcing the proposed prohibitions against false advertising, prescribed by the Copeland bill as it passed the Senate, are essentially the ordinary processes of law, tempered by the requirement for a preliminary hearing in those cases in which the Secretary of Agriculture or any health, food or drug officer of any state or territory is to institute proceedings in his official capacity. After such a hearing, the case is reported to the proper United States district attorney for criminal proceedings, if the hearing indicates that to be the proper course. The hearing and the criminal proceedings under the Copeland bill are to be based on prohibitions in the bill itself that are easily understood. In event of conviction, the defendant has the usual opportunities for appeal, and unless he is successful on appeal he is liable to fine or imprisonment, or both. The Copeland bill makes provision, too, for the issue of injunctions to restrain a prospective offender from violating certain of its provisions and for the seizure of contraband foods, drugs, diagnostic and therapeutic devices and cosmetics.

The Wheeler-Lea Federal Trade Commission bill proposes to vest the commission with authority to proceed against advertisers of foods, drugs, diagnostic and therapeutic devices and cosmetics, criminally and by injunction, as well as by the ordinary processes of the commission. No such authority to proceed criminally and by injunction against advertisers of other merchandise is to be given. The reason for the distinction is not clear. The authority to proceed by criminal action is not likely to be often used, for the prescribed penalties are enforceable only when it can be shown by legal evidence that the use of the article advertised may be "injurious to health because of such use" or that the advertiser intended to defraud or mislead. Since the bill does not propose to require that the composition, quality and potency of foods, drugs, diagnostic and therapeutic devices and cosmetics be published in their advertisements or stated on their labels, the likelihood of being able to prove that the use of the article advertised may be injurious to health or that the advertiser intended to defraud or mislead would be difficult, certainly at any time prior to the discovery of actual harm or prior to the discovery by analysis of the patently fraudulent character of its contents. The provisions of the Wheeler-Lea bill authorizing the commission to bring suit to enjoin dissemination of advertisements offers somewhat better promise of protection to the public, but the difficulties incident to its general application are likely to interfere.

Procedure under the Wheeler-Lea Federal Trade Commission bill would presumably be ordinarily civil rather than criminal, the criminal penalties authorized by that bill being applicable only in cases in which the prosecution can prove that the advertisement of the defendant endangered health or was intended to defraud or mislead. On petition of the Federal Trade Commission, under the provisions of the Wheeler-Lea bill, the court might restrain the dissemination of false advertisement, except that no court could restrain the dissemination of a false advertisement in any particular issue of a newspaper, magazine, periodical or other publication, published at regular intervals, if such restraint would delay the delivery of such issue after the regular time therefor and if such delay in issuing an injunction was not caused by any method or device adopted by the publisher for the purpose of evading the law.

The ordinary processes of the Federal Trade Commission, however, are civil in character, long drawn out, and liable to prove innocuous as far as advertisers are concerned. The com-

mission must discover or have presented to it evidence to justify it in concluding that the advertiser has been or is using an unfair or deceptive act or practice in interstate and foreign commerce, before the commission can act. Even after such evidence is forthcoming, the commission, before proceeding, must determine that it will be to the interest of the public that it proceed. If the commission so determines, the commission may serve notice on the responsible advertiser of the charges against him and of a time and place for a hearing, not less than thirty days after the service of the complaint. When the time for a hearing arrives, not less than thirty days after the service of the complaint, the advertiser may show cause why the commission should not order him to cease and desist from the advertising. If, however, the commission concludes that a cease and desist order should be issued, it must make a report as to its findings of fact and must issue an order to the advertiser requiring him to cease and desist from the act or practice complained of, that is, the advertising on which the proceeding was based.

An advertiser required by order of the commission to cease and desist from the use of any advertisement has sixty days after service of a cease and desist order within which to appeal to a United States Circuit Court of Appeals. That court may affirm, modify or set aside the order of the commission and enforce it as it is affirmed or modified, or it may refer the case back to the commission for the taking of additional testimony. If after all this procedure the advertiser discontinues the use of the objectionable advertisement or modifies it to evade the terms of the cease and desist order, he is not subject to penalty unless it can be shown that his advertisement was a danger to health or was issued with intent to defraud or mislead. The Wheeler-Lea bill devotes two pages to an elaborate statement as to the time when a cease and desist order becomes final, from which it appears that the earliest date is sixty days after the date of the service of the order; that is, not less than ninety days after the service on the respondent of the original charge, plus all such time as has been consumed in the hearing, in the formulating of the commission's report on the facts, and in obtaining service of the cease and desist order on the advertiser. There is but one Federal Trade Commission for the entire United States. While hearings may be conducted by its subordinates, in the end every advertiser summoned before it is entitled to the judgment of the commission itself on the question of the fraudulent character of the advertisement and could not be put off with the judgment of a subordinate. The difficulty of enforcing the law under such circumstances is obvious. The cost to which an advertiser would be put in defending himself would be prohibitive to all except those doing business on a very large scale.

CONCLUSIONS

The interest and duty of physicians with respect to legislation for the protection of the people against fraud and danger to health through the importation, manufacture and sale of food, drugs, diagnostic and therapeutic devices and cosmetics have been pointed out. This report has been drafted for the sole purpose of enabling readers to draw their own conclusions with respect to pending legislation relating to such articles and to communicate those conclusions, as they should do, to their respective senators and representatives. The following conclusions, however, seem to be justified:

1. A division of authority and responsibility for the enforcement of any general food, drug, diagnostic and therapeutic device and cosmetic law between any two independent branches of the federal government would not be to the advantage of the public. Any legislation proposing to make such a division of authority and responsibility should be opposed. The House of Representatives should be urged, therefore, before passing S. 1077, An Act to amend the Act creating the Federal Trade Commission, to define its powers and duties and for other purposes, sometimes referred to as the Wheeler-Lea bill, which is now on the House calendar, to amend it so as to prevent such a division of responsibility between the Federal Trade Commission and the Department of Agriculture.

2. The provisions of the Copeland bill now pending before the Committee on Interstate and Foreign Commerce of the House of Representatives, as far as they relate specifically to the advertising of foods, drugs, diagnostic and therapeutic devices and cosmetics, seem to be much better planned for the effective protection of the consumer than do the provisions proposed by that committee for incorporation in the Wheeler-Lea Federal Trade Commission bill referred to. The House of Representatives should be urged not only to eliminate from S. 1077, the Wheeler-Lea Federal Trade Commission bill, the provisions relating specifically to the advertising of food, drugs, diagnostic and therapeutic devices and cosmetics but should be urged further to retain in S. 5, the Copeland foods, drugs, diagnostic and therapeutic devices and cosmetics bill, the advertising provisions now there and to strengthen them.

3. If authority and responsibility for the advertising of foods, drugs, diagnostic and therapeutic devices and cosmetics is to be vested in the Federal Trade Commission, the House of Representatives would do well to consider the

V 10
1937

advisability of charging that commission with each and every authority and responsibility under any such bill that may be enacted. In doing so, however, it should bear in mind the accumulated experience of the Department of Agriculture with respect to the enforcement of such legislation and should not lightly transfer jurisdiction.

4. The House of Representatives should be urged to make adequate provision for the establishment of obligatory legal standards for drugs and diagnostic and therapeutic devices, in the Copeland bill or any bill of similar purport.

5. Minor defects, which it has been impracticable to comment on in this report, should be sought out and remedied, bearing in mind always that it is not primarily for the benefit of the importer, manufacturer, vender and advertiser that such legislation is enacted, but for the benefit of the consumer.

Reference has been made solely to representations that may be made to the members of the House of Representatives with possible advantage. This is because the bills that have been reviewed have both passed the Senate and are now before the House. They must ultimately go back to the Senate, however, and representations along the lines suggested may with advantage be made to members of the Senate. It must be understood, of course, that either bill as it goes back to the Senate or to the House of Representatives may be in a form much different from the form in which it now is and on which this memorandum is based.

Official Notes

ANNUAL CONFERENCE OF STATE SECRETARIES

The Annual Conference of Secretaries of Constituent State Medical Associations for 1937 will be held in Chicago, Friday and Saturday, November 19 and 20. The Friday morning and afternoon sessions and the Saturday morning session will be held at the American Medical Association Building, 535 North Dearborn Street. The Friday evening session will be held at the Palmer House.

The program will be as follows:

Friday, November 19, 10 A. M.

Call to Order. Arthur W. Booth, Chairman, Board of Trustees of American Medical Association.

Address. J. H. J. Upham, President, American Medical Association.

Student Health Services: A Challenge to Medical Societies. J. D. Laux, Bureau of Medical Economics of American Medical Association.

Extension (Postgraduate) Courses of State Medical Associations. Walter F. Donaldson, Pittsburgh; Creighton Barker, New Haven, Conn.; T. W. M. Long, Roanoke Rapids, N. C.; Holman Taylor, Fort Worth, Texas.

The Uses and Benefits of Exhibits Under Auspices of State Medical Associations. Eben J. Carey, Milwaukee.

12: 30 p. m. Luncheon.

Friday, November 19, 2 P. M.

Address. Irvin Abell, President-Elect, American Medical Association. The State Association and the Social Security Act:

New Jersey's Cooperative Program for Maternal and Child Health. LeRoy A. Wilkes, Trenton, N. J.

Cooperative Program of the Illinois State Medical Society. Harold M. Camp, Monmouth, Ill.

The State Association's Part in a Pneumonia Control Program. Peter Irving, New York.

Friday, November 19, 6:30 P. M.

PALMER HOUSE

Dinner Meeting of Editors of State Medical Journals. E. M. Shanklin, Hammond, Ind., Presiding.

Better Papers for State Medical Journals. J. H. Dempster, Detroit.

Round Table Discussion:

Publication Costs.
Typographic Arrangement.
Cross References.

Saturday, November 20, 9:30 A. M.

Two Important Legal Problems: Malpractice Claims: Taxation Under Federal Revenue Acts and Social Security Act. W. C. Woodward, Director, Bureau of Legal Medicine and Legislation of American Medical Association.

Topics for General Discussion:

Secretary's Bulletins for Officers or Members.
By-Laws Pertaining to Membership and Disciplinary Measures.
Rural Rehabilitation Plans of Federal Government.
Independent Societies.
Automobile Accidents.

THE SAN FRANCISCO SESSION

Space in the Scientific Exhibit

Application blanks are now available for space in the Scientific Exhibit at the San Francisco Session, June 13-17, 1938. The Committee on Scientific Exhibit requires that all applicants fill out the regular forms.

Application blanks may be obtained from the Director, Scientific Exhibit, American Medical Association, 535 North Dearborn Street, Chicago.

RADIO BROADCASTS

The American Medical Association and the National Broadcasting Company present the fifth series of network health programs beginning Oct. 13, 1937, and running weekly through June 15, 1938. The programs will be presented over the Red network each Wednesday at 2 p. m. eastern standard time, 1 p. m. central standard time, 12 o'clock noon mountain standard time and 11 a. m. Pacific standard time.

The dates and topics of the broadcasts for the coming months are as follows:

Hygiene

November 10—Playing for Fun: health values and hazards in sports and recreation, including football.

November 17—Fresh Air, Fresh Clothes and Fresh Skin: ventilation; clothing; bathing.

November 24—Rest, Relaxation, Refreshment: all work and no play, or all play and no rest—bad for health.

December 1—Tuberculosis, Foe of Youth: how bad habits of hygiene and unwise living, plus infection, favor tuberculosis.

The stations on the Red network are privileged to broadcast the program but, since it is a noncommercial program, they are not obligated to do so. Interest on the part of medical societies, women's auxiliaries and others may have weight with program directors of local stations. A personal visit to the program director might be advisable if the program is not being taken by a local station. This is an opportunity for the appropriate committees of county medical societies to indicate their interest in having this program broadcast in their community and to enlist the interest of other groups.

Woman's Auxiliary

Indiana

The annual meeting of the Woman's Auxiliary to The Indiana State Medical Association was held at French Lick, October 4-6. Headquarters was at the French Lick Springs Hotel. Mrs. Marcus Ravdin was president and the guest speaker was Dr. Paul A. Teschner, Assistant Director, Bureau of Health and Public Instruction, American Medical Association. A report of the national meeting at Atlantic City was given by Mrs. George R. Dillinger, French Lick. Mrs. O. G. Pfaff gave a special report on "Pioneer Memorials in Indiana." Dr. Irvin Abell, Louisville, Ky., President-Elect of the American Medical Association, and Al Wynkoop, editor of the Lebanon *Reporter*, spoke at the annual banquet.

Iowa

The Polk County Auxiliary met at the Veterans' Hospital Administration, October 12. The wives of the members of the hospital staff were hostesses. Speakers for the meeting of November 19 will be Dr. Walter L. Bierring, State Health Commissioner; Dr. Walter E. Baker, president of the Polk County Medical Society, and Miss Adah Hershey, supervisor of the Des Moines Public Health Nursing Service.

Members of the Calhoun County Medical Society invited their wives to meet with them at Rockwell City September 21 for the purpose of organizing a woman's auxiliary. Mrs. Robert G. Hinrichs of Manson was elected president.

Mrs. Augustus S. Kech, president of the Woman's Auxiliary to the American Medical Association, was speaker at a special meeting of the Des Moines Auxiliary September 10.

Nebraska

A meeting of the board of directors of the Woman's Auxiliary to the Nebraska State Medical Society was held in Grand Island, September 9. Speakers at the meeting were Mrs. Augustus S. Kech, president of the Woman's Auxiliary to the American Medical Association, and Mrs. Charles C. Tomlinson, president-elect. Plans for the year were given by Mrs. E. E. Farnsworth, president of the Nebraska auxiliary.

Washington

The annual meeting of the Woman's Auxiliary to the Washington State Medical Association was held in Seattle, July 18-21. Business meetings were held at the Olympic Hotel. Social events included a woman's golf tournament, luncheons, garden tours and an evening entertainment at the Olympic Hotel given by the state medical association.

Mrs. Roscoe Mosiman is president of the Washington Auxiliary for 1937-1938.

Medical Economic Abstracts

ILLINOIS MEDICAL SOCIETY CONDEMNS STATE MEDICINE AND CONTRACT PRACTICE

The Council of the Illinois State Medical Society has declared itself against the senate joint resolution introduced by Senator J. Hamilton Lewis in a resolution which concludes as follows:

Resolved, By the council of the Illinois State Medical Society in regular session assembled, That Senate Joint Resolution 188 is inimical to the best public interests, is un-American and unworkable, would result in monumental expenses without yielding compensating benefits, would lead to political corruption and tyranny and ought to be defeated;

The Illinois State Medical Society also declared itself as opposed to all forms of lodge contract practice of medicine in which members of the order and their families receive a limited medical service by virtue of their membership. Several county medical societies in Illinois have ruled that any member accepting a contract must first submit the contract to the society or to a special committee for approval. The Fraternal Order of Eagles made most extensive use of this plan, and the attorney for the Eagles asked an opportunity to appear before the council of the state medical society, with the agreement that if the council ruled against the plan he would recommend that medical care to members and their families be eliminated in the future. After listening to the attorney, the council ruled unanimously that lodge contract practice is unethical and a violation of our state medical practice act. In the course of the discussion it was learned that a lodge doctor in one Illinois county was caring for 14,000 people through their membership in the Fraternal Order of Eagles; $2.50 per member was paid annually for medical care, excluding obstetric care, treatment of venereal diseases and surgical operations.

WHAT MAKES A PROFESSION?

Nine criteria that characterize a profession are selected from a number of discussions of professions by F. Stuart Chapin and Stuart A. Queen in their recent work "Research Memorandum on Social Work in the Depression" (Bulletin 39), New York, Social Science Research Council, 1937:

"A profession involves personal service; second, this personal service is practical in the sense of being an art; third, there is an intellectual character to this service with considerable self direction and individual responsibility; fourth, the service is based on science and learning; fifth, it has a technic that is transmissible through an orderly and specialized educational discipline; sixth, there is usually payment for skilled service; seventh, members of the profession are a brotherhood; eighth, there is an increasingly altruistic motivation and devotion to the well being of those served and of the larger community; ninth, this sense of social responsibility is embodied in a code of ethics."

V 10
1937

ORGANIZATION SECTION

of the

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Devoted to the Organizational, Business, Economic and Social Aspects of Medical Practice

SATURDAY, NOVEMBER 27, 1937

CONTENTS

	PAGE
BROADCASTING HEALTH MATERIAL FOR AMERICA'S SCHOOLS	85B
BRITISH MEDICAL ASSOCIATION	87B
OFFICIAL NOTES	89B
WOMAN'S AUXILIARY	90B
MEDICAL ECONOMIC ABSTRACTS	91B

Broadcasting Health Material for America's Schools

A Statement by the Bureau of Health and Public Instruction

The radio program Your Health, broadcast by the American Medical Association and the National Broadcasting Company over a nation-wide network, is now in its fifth consecutive year, and the third year in succession in which the dramatic technic has been employed. This program has made a genuine place for itself in American educational and radio circles. The dramatic technic has been described and its results evaluated in the *American Medical Association Bulletin*.[1] This year the program takes on a new character of special significance. As described in detail in THE JOURNAL,[2] it is now broadcast for the special purpose of supplementing and enriching health educational material available to teachers of health and hygiene in the high schools and junior high schools of the United States. This policy has changed certain salient features of the program.

In order that it may be heard, if desired, by classes in session, the program must be broadcast during hours when school is in session. One broadcast had to serve as many schools as possible, because the budget provided would not permit a rebroadcast. The time selected as best under all the circumstances was 2 p. m., eastern standard time, which brings the program to the Middle West one hour earlier and to the Pacific coast at 11 a. m. Schools are in session during these hours. In the mountain time area the choice is not ideal, but these areas have the smallest population, the smallest number of schools, and the smallest number of radio stations affiliated with the network of the National Broadcasting Company. They get the program at 12 noon, an hour admittedly less favorable than might have been wished but not impossible for schools where the interest in the program proves sufficient to stimulate the formation of special listening groups.

Another change in the character of the program is that it is now planned as a coordinated and fairly comprehensive review of the principal health and hygiene topics of interest to young people. Instead of isolated programs of largely seasonal timeliness, as in the past, the entire series is arranged to give a practical working knowledge of health, when supplemented by the reading suggested in accessory material published to be used, if desired, in conjunction with the program.

The mode of presentation is somewhat modified, in that the problems presented on the air give greater emphasis to the needs and the points of view of youth than did previous broadcasts. While these broadcasts are being presented in a manner which it is hoped will be especially suitable for and interesting to the teen age group, it is also believed that the interest of parents in the problems of their children will render the entire series at least as useful to listeners in the home as previous series have proved to be.

Because this is not merely a listening program but a participation and study program, supplementary material was recognized as a necessity. Therefore there has been established a new department in *Hygeia*, to run during the duration of the radio series, in which will be published each month, in advance, briefs for the next four programs scheduled, plus reading suggestions and a list of projects which may give the teachers some ideas as to projects in which the classes may engage as means of supplementing the information gained from the

1. Bauer, W. W.: Dramatizing the Health Message, A. M. A. Bull. **30**:97 (Oct.) 1935; Evaluating Health Dramatizations, ibid. **31**:114 (May) 1936.

2. New Dramatized Radio Programs "To America's Schools—Your Health!" prepared by the Bureau of Health and Public Instruction, J. A. M. A. Organization Section **109**:55B (Oct. 9) 1937.

programs themselves.[3] For the use of students a working book has been prepared suggesting projects and providing the means for recording the results, thus furnishing each student a season's record of health activities of a practical and constructive nature.[4]

As this issue of THE JOURNAL goes to press, only six programs have been given. It is manifestly too early to arrive at any conclusions as to results as early in the series as this, but certain trends can be indicated now in a preliminary manner. It is hoped to present a fuller evaluation when more broadcasts have been made and when the reaction of educators has been more adequately ascertained. The program is at present decidedly in the experimental stage, but there are indications that it is beginning to fill a real need.

The only indications of the reception an educational program receives are listener surveys and the mail received from audiences. A few excerpts from mail received thus far are presented as an indication of what listeners think of the program. Our listeners comprise three principal groups: (1) the physicians in whose name this program is broadcast, (2) educators using the program or contemplating its use, (3) casual listeners not in school and (4) officers of organizations interested in public health.

From physicians, only a few letters have been received. The program comes at hours when they cannot listen readily; moreover, it is not composed of material intended for the physician primarily. The following quotations are typical:

I hope you will continue to broadcast the . . . health messages every Wednesday at 11 o'clock. I am a physician having the care of many children of the junior and senior high school age. They will appreciate and enjoy these programs. (From California.)

On yesterday afternoon it was my privilege to listen to what I think is one of the best programs that I have heard for some time, namely the one entitled Your Health. . . . I am not saying this because I am a member of the medical profession alone, but due to the fact that there is so much real education brought out in the program. . . . (From Virginia.)

Under the title "The Radio Voice of Medicine" the *Texas State Journal of Medicine* comments as follows:

We are happy to note that the American Medical Association radio broadcasts will be continued during the forthcoming season. The title of the broadcast is, to be exact, Your Health. The addresses this year will be directed specifically to teachers and students in our junior and senior high schools, in the hope that they will be helpful in illustrating, amplifying and enriching the health talks (if any) in these schools.

3. To America's Schools Your Health, Hygeia, the Health Magazine.

4. To America's Schools Your Health, compiled by W. W. Bauer, and P. A. Teschner, Johnson Publishing Company, Richmond Va. (offices also in Atlanta, Dallas, New York and Chicago), 1937, 25 cents.

Most of the mail received so far has come from educators. The following excerpts are typical:

From a classroom teacher in California:

I have just listened to your health program, and wish to express my appreciation and also my wish that it may help to cut down tuberculosis in young women.

From a supervisor of Health and Physical Education in New York:

Please send me twenty copies of the program weekly dramatized health messages. It is my desire to distribute these programs to the principals of our schools in order that they may tune in on the programs for health teaching purposes.

From a nutritionist in university extension work in Kentucky:

I am very much interested in the radio program which is being put on by the American Medical Association. If possible I would like to have fifty copies of the programs to send to our home demonstration agents.

From another high school teacher in California:

In order to know which science classes can use the health program broadcast weekly on Wednesday at 11 a. m., we need to know in advance what is to be discussed each time.

From another California high school teacher:

Are there to be available mimeographed copies of these advertised programs? . . . It is exactly the kind of material I have been looking for.

From a high school principal in New York:

If program guides are available for the Wednesday 2 p. m. Your Health, we would be very glad to have same.

The tenor of these letters is significant. They do not express praise in words. They do better; they indicate a definite intention to use the material to the utmost, which is exactly the purpose for which it is being broadcast. The letters also indicate the necessity for supplementary material. A radio program intended for educational purposes does not stand alone.

From listeners in the home come such letters as the following:

Enjoy your program; very interesting. (From Maine.)

Up to now I have never written a fan letter of any sort in my life. But I did listen to Your Health today and to me it was the most interesting program ever to come over the air. You asked for comment. This is mine. (From Florida.)

No doubt you are swamped with welcoming letters from all over the United States telling you how glad every one is to hear your program back on the air again, so I want you to consider my letter among those of sincere welcome. (From Pennsylvania.)

I believe your program is going to be a great help to many. (From California.)

I used to be able to listen to this program last year when it was on the radio at 4 p. m., but now that it is on the radio at 2 p. m. it is impossible for me to listen to it, as I arrive home at about 3:30 p. m. Will you please be so kind as to try to change the time

V 10
1937

of this program to about 3:30 or later? (From New York.)

The editor of *Science Leaflet*,[5] official publication of the Student Science Clubs of America, writes:

We would be glad to receive copies of these broadcasts and to reprint a considerable number of them, if permission should be granted.

From the American Society for the Hard of Hearing comes this letter:

Again we are in the midst of answering a flood of letters as a result of your splendid broadcast on October 27. We wish to express our sincere appreciation of what you have done for the hard of hearing. . . .

The New York League for the Hard of Hearing writes:

National Hearing Week is just about over. Your participation in broadcasting has added to the success of our program. We are grateful to you.

The National Tuberculosis Association has notified all its state and local organizations about the program on tuberculosis scheduled for November 30.

From the foregoing it will be seen that the program starts out auspiciously. At this writing there can be no real evaluation of its results. It is a long-time project. Probably all of the first year will be spent in laying the groundwork for future years. The Damrosch musical appreciation hour, one of the National Broadcasting Company's most popular educational features, is in its tenth year; it is based on the same philosophy as the program Your Health, namely, the enrichment of teaching material. It is not intended to supplant regular teaching but to supplement it.

Accessory publicity for the program Your Health has not been overlooked. Announcements were sent out, and clippings indicate that they were used by numerous state medical journals and county medical society bulletins, as well as by educational journals and the publications of state and city health departments. Posters and announcements containing the schedule of broadcasts from October through June are being distributed locally by the Woman's Auxiliary to the American Medical Association and have been furnished as well to educational supervisors in larger city school systems. The program is announced in the daily papers in the regular radio columns. Stuffer announcements of the program are included in *Hygeia's* correspondence with teachers. The supplementary radio department in *Hygeia* monthly is itself in the nature of publicity. But when all is said and done, the most valuable publicity is by word of mouth. These programs are a contribution by physicians, through their professional organization, to the public health. Their value can be enhanced by personal interest on the part of physicians evidenced through recommendations to their patients, and through the county medical societies and auxiliaries, to the schools for which the program is designed.

Following is a verified list of stations now actually broadcasting Your Health program. Other stations, according to information at hand, are preparing to take the program when present commitments involving the Your Health time expire.

Red Network

WEAF	New York	WWNC	Asheville
WJAR	Providence	WIS	Columbia
WCSH	Portland, Me.	WCSC	Charleston
WDEL	Wilmington	WAPI	Birmingham
WFBR	Baltimore	WJDX	Jackson
WRC	Washington	WSMB	New Orleans
WBEN	Buffalo	WJAX	Jacksonville
WTAM	Cleveland	WFLA-WSUN	Tampa
WWJ	Detroit		
WMAQ	Chicago	WIOD	Miami
KSTP	Minn.-St. Paul	KGBX	Springfield, Mo.
WHO	Des Moines	WKY	Oklahoma City
WDAF	Kansas City	KTBS	Shreveport
WSAN	Allentown	KTHS	Hot Springs
WGL	Fort Wayne	KFYR	Bismarck
WBOW	Terre Haute	KPO	San Francisco
WGBF	Evansville	KFI	Los Angeles
WEBC	Duluth-Superior	KOMO	Seattle
WTAR	Norfolk	KTAR	Phoenix
WPTF	Raleigh	KMJ	Fresno
WSOC	Charlotte	CFCF	Montreal
WFBC	Greenville		

5. Unpublished correspondence in BHAPI file.

British Medical Association

By a Special Correspondent

The British Medical Association was founded in 1832 to promote the medical and allied sciences and to maintain the honor and interests of the medical profession.

The present constitution of the association was introduced in 1903; it is so arranged that every member has an opportunity, through his local unit, to take part in the association's scientific and social activities and in the formation of its policy. The association is, in effect, a federation of local medical societies called divisions, which are grouped together for certain administrative purposes into branches. Members' subscriptions are received at the head office in London, and grants are made to each branch on the basis of a prescribed amount in respect of each member. The branch supplies the divisions in its area with funds for their work.

The branches and divisions arrange their own programs, which consist of scientific and clinical discussions and demonstrations, the consideration of medicopolitical and medicosociological questions, and social functions. Each branch and division appoints an

honorary secretary and elects annually a president, in the case of a branch, and a chairman, in the case of a division. The branch also elects annually a branch council, and the division elects an executive committee, and in addition both divisions and branches may appoint committees to deal with certain sections of their work. The constitution and procedure of the local units are governed by their rules of organization and their ethical rules, which must receive the approval of the central council.

The link that binds together all these local units is the representative body, which is the governing body of the association. This meets once a year as what has been called the "Doctors' Parliament," to which each division or group of divisions sends a representative or representatives, according to membership of the division, and which also includes members of the existing central council and representatives of the public health service. It is in this annual representative meeting that the body of principles known as the "policy" of the association is built up. Motions are submitted by the central council and individual divisions, and full opportunity is given for free discussion and criticism. If a motion proposing the adoption of a particular principle affecting the honor and interests of the profession or the association is accepted by a majority of two thirds of those present, that principle becomes an official "decision of the association" and so part of the association's policy. The representative meeting also considers the annual report of the council and the annual financial statement. At the time of the representative meeting the officers of the association for the following year, or period of years, are elected. The representative meeting as a whole elects the president of the association, a chairman and a deputy chairman of the representative body and a treasurer and, on occasion, honorary members, vice presidents and foreign corresponding members. It also elects certain members of the central council and of the central committees.

The representatives who compose the representative body are elected annually by the division or group of divisions, and their duty in speaking or voting at the representative meeting is to submit motions on behalf of their divisions and to express the views of their constituencies so far as they know them.

The council is the central executive of the association. It is composed of the chief officers of the association, members elected by the representative body, some being elected by the meeting as a whole and some by groups of representatives, members elected by groups of branches in Great Britain and Northern Ireland and by the branches overseas, members representing the medical branches of the defense services, and members representing the public health service. The council is responsible to the representative body for the management of the affairs of the association, including the conduct of the *British Medical Journal*, the association's official organ. It receives instructions from the annual representative meeting and considers and deals with any matters arising for attention in the intervals between the meetings. Reports of these meetings, which are held four times a year in addition to two meetings at the time of the annual meeting, are published in the supplement to the *British Medical Journal*, and communications concerning the council's work are frequently sent to the divisions for information or for action. Every member of the association has thus an opportunity of being familiar with the work which is being performed on his behalf at the head office. The record of the council's work is contained in its annual and supplementary reports, which are submitted to the representative body. These reports are previously published in the supplement to the *British Medical Journal* in order that divisions may have an opportunity of studying and discussing them and of preparing motions relating to them for presentation to the representative body. At the representative meeting the council's report is considered and approved, or disapproved, section by section.

In the interests of efficiency and convenience, the council delegates much of the preliminary consideration of its work to a number of standing committees, which have certain duties and powers assigned to them by by-laws. Some of the committee members are appointed by the council and some by the representative body, and some are appointed for their special knowledge of the committee's work, such as the public health service and the medical branches of the defense services. The names of the principal committees are sufficiently indicative of their work: Finance, Ethical, Hospitals, Public Health, Insurance Acts, Medico-Political and Parliamentary, Naval and Military, Science, Journal, Organization, Scottish, Welsh and Dominions, India, Colonies and Dependencies. The committees and their subcommittees meet frequently, and each committee presents a quarterly report on its work to the council. From time to time special committees are appointed either by the representative body or by the council or by the two jointly. The special committees of the association have often been the means of making valuable contributions on behalf of the profession to subjects of national importance, such as nutrition, physical education, the organization of the treatment of fractures, medical education, miners' nystagmus, the medical aspects of abortion, and the relation of alcohol to road accidents.

The Insurance Acts Committee is in a somewhat different position from the other standing committees, for it is recognized by the Ministry of Health as the mouthpiece of insurance practitioners throughout the country, and it acts as the executive of a national conference of representatives of statutory local committees known as local medical and panel committees, which are in charge of the local medical arrangements under the act. The committee is composed of the chief officers of the association, of members elected by the representative body, members elected directly by the local medical and panel committees, and representatives of local government medical officers and of the association's Hospitals Committee. The aims of the committee are to secure and maintain the best possible conditions of service for medical practitioners accepting service under the national health insurance acts, and to secure for insured persons an adequate and efficient medical service.

The Central Ethical Committee is another committee that may receive particular mention, for it administers on behalf of the council the association's ethical machinery. The aim of the association in this respect is to provide an experienced and impartial tribunal suitable for dealing with questions of professional conduct not sufficiently serious to be brought within the purview of the General Medical Council,

which is the statutory governing body of the profession in this country. Each division and branch in Great Britain and Northern Ireland appoints an Ethical Committee, whose procedure is strictly governed by uniform ethical rules which have been framed and approved by the representative body, and the honorary secretaries of divisions and branches must act in each case in accordance with the advice and instructions of the head office. The functions of the Central Ethical Committee include the giving of advice as to the propriety of particular proposals and the investigation of disputes between individual members of the profession which have been referred to the committee by the divisions and branches. Some disputes may mean nothing more than a misunderstanding or difference of opinion, and the Central Ethical Committee is prepared in these cases to give its opinion on the facts without any question of reflection or censure on one side or the other, provided both parties to the dispute undertake to accept the verdict of the committee as final and binding.

The annual meeting of the association, which is held in a different city each year, brings together a large number of members from Great Britain and from overseas. Apart from the annual general meeting, which is held in conformity with the companies act, the annual meeting consists of two parts, the annual representative meeting, the purpose of which has already been described, and the scientific meeting, which is open not only to the representatives but to all members of the association. The scientific meeting is arranged in sections, each of which is devoted to a particular branch of medicine or surgery. Each section has its own secretary and president, and the proceedings generally consist of one or two opening papers and a general discussion. There is also an exhibition of medical products and apparatus, and numerous social functions are arranged.

A word must be added about the association overseas, for there are members in all parts of the British empire and even in foreign countries. Branches outside Great Britain and Northern Ireland are given the fullest possible powers in the management of their affairs, including the levy of a local subscription in addition to the ordinary association subscription, and the exercise of ethical and disciplinary control of their members. In Australia and South Africa the branches are coordinated to form federal councils, which have powers similar to those of the parent body. A special central committee known as the Dominions, India, Colonies and Dependencies Committee, the members of which include those members of council elected by the branches overseas, exists for the purpose of considering questions relating to the branches outside Great Britain and Northern Ireland.

The association's constitution is a democratic one in which the government of policy is in the hands of elected representatives. Every member has an opportunity, through his local division, of participating in all the activities of the association, of influencing its policy, and of helping to promote the honor and interests of the medical profession. In addition, every member has a right to the advice and assistance of the secretariat at the head office, which has at its disposal a valuable body of information and experience accumulated over a period of many years.

Official Notes

THE SAN FRANCISCO SESSION

Appointment of Representatives to the Scientific Exhibit

Representatives to the Scientific Exhibit have been appointed by the various sections of the Scientific Assembly as follows:

Practice of Medicine—Dr. Fred M. Smith, University Hospitals, Iowa City.

Surgery, General and Abdominal—Dr. Grover C. Penberthy, 1553 Woodward Avenue, Detroit.

Obstetrics and Gynecology—Dr. H. Close Hesseltine, 5841 Maryland Avenue, Chicago.

Ophthalmology—Dr. Georgiana Dvorak-Theobald, 720 Medical Arts Bldg., Oak Park, Ill.

Laryngology, Otology and Rhinology—Dr. Robert C. Martin, 384 Post Street, San Francisco.

Pediatrics—Dr. F. Thomas Mitchell, 376 South Bellevue, Memphis, Tenn.

Pharmacology and Therapeutics—Dr. Wallace M. Yater, Georgetown University Hospital, Washington, D. C.

Pathology and Physiology—Dr. F. W. Konzelmann, Temple University Hospital, Philadelphia.

Nervous and Mental Diseases—Dr. Roland P. Mackay, 8 South Michigan Avenue, Chicago.

Dermatology and Syphilology—Dr. Clark W. Finnerud, 55 East Washington Street, Chicago.

Preventive and Industrial Medicine and Public Health—Dr. Paul A. Davis, 1436 Delia Avenue, Akron, Ohio.

Urology—Dr. R. S. Ferguson, 121 East 60th Street, New York.

Orthopedic Surgery—Dr. Norman T. Kirk, Letterman General Hospital, U. S. Army, San Francisco.

Gastro-Enterology and Proctology—Dr. J. A. Bargen, Mayo Clinic, Rochester, Minn.

Radiology—Dr. Elwood E. Downs, 509 North Broad Street, Woodbury, N. J.

Application blanks for space may be obtained from any of the representatives or from the Director, Scientific Exhibit, American Medical Association, 535 North Dearborn Street, Chicago.

ADDRESSES BY OFFICIAL STAFF

DR. W. W. BAUER:

November 29—National Committee on Boys and Girls Club Work, Chicago.

November 30—Nebraska State Medical Association and Tuberculosis Association, York, Neb.

December 3—Nash School Parent-Teacher Association, Chicago.

December 7—West Ridge Community Club, Highland Park, Ill.

DR. MORRIS FISHBEIN:

November 26—The Knife and Fork Club, Salt Lake City.

November 29—Mount Zion Hospital, San Francisco.

November 30—San Francisco Medical Society, San Francisco.

December 1—San Francisco Center of the California League of Women Voters, San Francisco.

December 2—Los Angeles Medical Society, Los Angeles.

December 5—Post-Graduate Medical Assembly, Los Angeles.
December 7—State Crippled Children Conference, Dallas, Texas.
December 8—Rotary Club, Dallas, Texas.
December 11—Associated Women of the American Farm Bureau Federation, Chicago.
December 14—Chicago Medical Society, Chicago.

DR. WILLIAM D. CUTTER:
December 1—Southern Medical Association, New Orleans.
December 8—Library Club, Des Moines, Iowa.

DR. R. G. LELAND:
November 28—Conference on Group Hospitalization, Jacksonville, Fla.
December 2—Group of Health Administrators, Ann Arbor, Mich.
December 7—Memphis and Shelby County Medical Societies, Memphis, Tenn.
December 11-12—American Public Welfare Association Conference, Washington, D. C.

DR. PAUL A. TESCHNER:
November 29—Young Peoples' Club, Chicago.
November 30—Woman's Auxiliary to the Ingham County Medical Society, Lansing, Mich.
December 1—Du Page County Tuberculosis Association, Glen Ellyn, Ill.
December 2—Bureau County Medical Society, Woman's Auxiliary, Princeton, Ill.

RADIO BROADCASTS

The American Medical Association and the National Broadcasting Company present the fifth series of network health programs, beginning Oct. 13, 1937, and running weekly through June 15, 1938. The programs will be presented over the Red network each Wednesday at 2 p. m. eastern standard time, 1 p. m. central standard time, 12 o'clock noon mountain standard time and 11 a. m. Pacific standard time.

The dates and topics of the broadcasts for the coming month are as follows:

Hygiene

December 1—Tuberculosis, Foe of Youth: how bad habits of hygiene and unwise living, plus infection, favor tuberculosis.

Diet

December 8—It Takes All Good Foods: a well rounded diet and how to get it.
December 15—Vitamins, Minerals and Common Sense: more about a balanced diet in special relation to minerals and vitamins.
December 22—Dietary Fads: facts vs. fallacies in relation to prevalent false notions on diet.

The stations on the Red network are privileged to broadcast the program but, since it is a noncommercial program, they are not obligated to do so. Interest on the part of medical societies, women's auxiliaries and others may have weight with program directors of local stations. A personal visit to the program director might be advisable if the program is not being taken by a local station. This is an opportunity for the appropriate committees of county medical societies to indicate their interest in having this program broadcast in their community and to enlist the interest of other groups.

MEDICAL EXHIBITS

November 29-December 1—National Conference on Educational Broadcasting, Drake Hotel, Chicago. Exhibit on health pamphlets.
November 30—Concordia High School, Concordia, Kansas. Exhibit on Dangers of Self Diagnosis and Self Medication.
December 6-11—Englewood Y. M. C. A., Chicago. Exhibit on Prevention of Accidents.
December 27-30—Annual Science Exhibition, American Association for the Advancement of Science, Indianapolis. Exhibit on Mechanical Nostrums.

SYPHILIS: "A MOTION PICTURE CLINIC"

The following reservations have been made for the sound motion picture film on syphilis:
December 2—Evanston Branch Meeting of the Chicago Medical Society, Evanston, Ill.
December 14—South Chicago Branch Meeting of the Chicago Medical Society, Chicago, Ill.
December 17-19—Annual Meeting of the Puerto Rico Medical Association, Santurce, P. R.
December 28—Galen Club, San Diego, Calif.
December 29—Saranac Lake Medical Society, Saranac Lake, N. Y.

Woman's Auxiliary

California

The Board of Directors of the Woman's Auxiliary to the California Medical Association met in the Hotel Leamington, Oakland, September 29.

Mrs. Hobart Rogers, president of the California Auxiliary, and the board of directors are making plans to entertain the national and state auxiliaries and the wives of all physicians who will attend the annual session of the Woman's Auxiliary to the American Medical Association in San Francisco, June 13-17, 1938.

Mrs. Clifford A. Wright of Los Angeles was elected by the board of directors to serve as president-elect of the California auxiliary, which office was made vacant by the death of Mrs. John V. Barrow of Los Angeles. The Los Angeles Auxiliary has contributed $150 to the Lending Library Fund as a memorial to Mrs. Barrow.

The Alameda County auxiliary, with a membership of 255, held a luncheon meeting to begin its year's work. The Marin County auxiliary joined with the medical society for its opening meeting, with dinner at the Marin Golf and Country Club. Dr. Rowe spoke on "Clinical Problems in Allergy."

The first autumn meeting of the Los Angeles County auxiliary had an attendance of 128. Dr. Alvin G. Foord, director of Laboratories at the Huntington Memorial Hospital at Pasadena, spoke on the "Diagnosis of Disease by Laboratory Methods," illustrating the talk by a movie film.

At a recent meeting of the San Francisco auxiliary, Dr. Philip H. Pierson, president of the California State Tuberculosis Society, was the speaker.

Georgia

The First District of the Woman's Auxiliary to the Medical Association of Georgia met recently at the Hotel DeSoto in Savannah. The speakers were Mrs. Ralph H. Chaney, Augusta, state president of the auxiliary, who discussed "Aims and Objectives of the Auxiliary"; Mrs. H. B. Ritchie, "Work of the Women's Field Army of the American Society for the Control of Cancer"; Dr. Grady Coker, Canton, president-elect of the Medical Association of Georgia, "Social Welfare

and Medical Conditions in Our Counties"; Dr. S. Ross Brown of the State Department of Public Health, "Venereal Diseases and Public Health," and Dr. William R. Dancy, Savannah, "Federal Medicine."

The Woman's Auxiliary to the Sixth District Medical Association met recently in the Nurses Home of the Milledgeville State Hospital. Mrs. Ralph H. Chaney, Augusta, spoke on the "Aims and Plans of the Auxiliary." Other speakers were: Drs. George A. Traylor, Augusta, president of the Medical Association of Georgia, Edgar D. Shanks, Atlanta, secretary-treasurer, and Thomas L. Ross of Macon.

The Woman's Auxiliary to the Barrow County Medical Society held its quarterly meeting recently at Winder. Mrs. W. T. Randolph spoke on "Florence Nightingale, a Pioneer Woman in Medicine," and Mrs. Ernest Harris gave a sketch of the life of Elizabeth Blackwell, who is said to have been first woman to receive an M.D. degree.

Indiana

The Woman's Auxiliary of the Indianapolis Medical Society, which is the medical society of Marion County, held a "Hobby Fair," November 10, at the John Herron Art Institute in Indianapolis, under the presidency of Mrs. Walter P. Morton. More than four hundred persons attended. There was a great variety of exhibits ranging from telescopes of amateur astronomers to such hobbies as first editions, sculpture, painting, pottery, ship models, needlepoint, quilts, doilies, stamp collections, linoleum cutting, arrow heads, and many other varieties. According to Dr. Edgar F. Kiser, president of the Indianapolis Medical Society, no other event has meant so much in the way of fellowship and good feeling as did this event, which was participated in by both the physicians and their wives.

Nebraska

The Executive Board members of the Omaha-Douglas County Auxiliary held their first meeting at the Fontenelle Hotel, October 8.

The Woman's Auxiliary to the Lancaster County Medical Society met at the home of Dr. and Mrs. J. E. M. Thomson, October 4. The *Hygeia* chairman reported placing *Hygeia* in thirty schools. Mrs. Earl E. Farnsworth, state president, spoke on "The Aims and Objectives of the Auxiliary."

Medical Economic Abstracts

PHYSICIANS UNDER THE PANEL SYSTEM

A series of happenings in sickness insurance in Great Britain has disquieted the medical profession and confirmed many of the statements made by critics of that system. Insurance is about to be extended to youths of 16 years. The British Medical Association took advantage of this opportunity to ask for an increase in the capitation fee, this increase to apply to the young people introduced. The effort was a failure, and medical care must be furnished to new candidates for insurance for a fee of 9 shillings (about $2.25) a year.

Not only did the hearing fail to secure any increase in the capitation fee for the body of the insured, but it brought out most disturbing testimony from two regional medical officers who were former panel practitioners. The *Lancet* (2: 387 [Aug. 14] 1937) says: "The idea of the Ministry seemed to be to depreciate the service which insurance practitioners rendered, in order that the Ministry might secure it at the cheapest possible price." One of the government witnesses, Dr. Mackenna, says concerning diagnosis by panel physicians: "There are very few general practitioners who have the skill or the apparatus which is necessary for these modern and advanced methods." Concerning the use of the insurance system for prevention, he says, "in the whole twenty-four years I was in practice, I can only remember three healthy people coming to me and asking for such advice."

The other witness, Dr. Harvey, said: "Whilst it is still the primary duty of the panel doctor to arrive at a diagnosis and advise as to the treatment of disease, it is in the main the prerogative of the public health service to deal with its prevention and the adaptation of the individual to his environment. The occasions on which a healthy insured person came to consult me on the subject of how to keep fit were very few, and the amount of time involved was a negligible quantity."

Both witnesses repeatedly implied that all difficult cases of either diagnosis or treatment were sent to the hospitals.

Simultaneously with this action, the administration of insurance aroused the indignation of the medical profession by admitting opticians and chiropodists to medical practice. In spite of strenuous objections by the British Medical Association, opticians are now permitted to receive a fee from insurance for diagnosing eye defects and prescribing glasses (Supplement to the *British Medical Journal*, June 26, 1937, p. 415).

The sharp criticism of the quality of panel service has led the government to make some effort to supply graduate education to panel physicians. The Minister of Health now proposes to offer a refresher course to insurance practitioners generally as part of the insurance scheme, that is, without cost to the doctor who takes it (*Birmingham Medical Review* 12: 166 [Sept.] 1937)—the courses to be of fourteen days' length and not to be available to any one individual more often than once in five years, or until five years after qualification. Up to the present time, however, arrangements have not been made to provide such instruction for any large percentage of the panel practitioners, and the editor of the *Birmingham Medical Review* suggests that if some 15,000 panel physicians are eligible to take the course, it would require 150 classes of fourteen days, and even if not more than one half the eligibles apply to take the course, it is still a major problem to set up the classes and, more important still, to find the teachers and the institutions of the necessary very high standards.

Simultaneously, the Annual Report of the Ministry of Health appeared, stating that "The cost of the health services last year to the central government was £140,000,000, of which £75,000,000 was spent on health insurance and pensions. In addition to this sum local authorities spent £160,000,000 raised by rates, of which £50,000,000 went to the public health services. So the total cost of health and pensions falling on public funds is about £5 per annum per unit of population."

NATIONAL INCOME—1929 to 1936

A Report of the United States Department of Commerce on the changes in income that have taken place since 1929 shows that the total income produced of $80,757,000,000 in 1929 fell to $39,545,000,000 at the depth of the depression in 1932 and returned to $63,799,000,000 in 1936. The income in 1936 was still 21 per cent below that of 1929, even measured in the changed prices. It is thought that "very likely an

adequate price series reflecting properly the price of all goods and services produced would indicate a greater disparity between real income in 1936 and in 1929 than appears by simply comparing the relative declines in the above two series." Furthermore, there has been an increase of 6 per cent in population, so that, before the 1929 output per person can be reached, the production of goods and services must exceed the 1929 total by 6 per cent.

On the whole, employees' income has increased relatively at a greater rate than dividends, interest and royalties. "Labor's share was 66.5 per cent in 1936 as compared with 65.5 per cent in 1929 and a low of 64 per cent in 1932."

The whole picture is somewhat distorted by the fact that work relief wages and veterans' bonus totaled about $4,000,000,000 in 1936.

PUBLIC HEALTH STUDY

At the meeting of the American Public Health Association in New York City, October 5-6, Miss Josephine Roche, Assistant Secretary of the Treasury in charge of public health, asked for the appointment of "a special committee to cooperate with the United States Public Health Service in extending through proper methods the long accepted function of public health work to meet modern demands and needs of our people." In answer to this request, the governing council of the association passed the following resolution:

Resolved, That a special committee of this association shall be appointed to study the public health aspects of medical care and to cooperate with the United States Public Health Service and other federal agencies represented in the President's Interdepartmental Committee on Health and Welfare, the American Medical Association, the American Dental Association and other appropriate bodies in extending public health work to meet modern needs, especially those occasioned by the increasing importance of chronic diseases as causes of sickness and death. Such committee shall be appointed by the executive board at its next regular meeting.

At this meeting, Dr. Charles H. Goodrich, president of the Medical Society of the State of New York, commented as follows on the relations of various individuals and organizations to public health:

"Health departments, welfare agencies and other public health organizations on the one hand and the medical profession on the other all contain a certain very moderate percentage of self-seeking, narrow-minded, thoroughly commercial persons whose expressed views are based in reality on expectations of dollars and cents return to themselves, not on the welfare of the people. Some of them have subsisted for years on the golden products of superheated volubility interspersing a few facts charred beyond recognition. Those in the public health group decry the medical profession and all its works, thinking to make more places and salaries for themselves, climbing by pulling the other fellow down. Their most violent criticism of physicians' opinions is 'He went medical.' That, in their estimate, is the lowest depths of moral degradation. The physician group referred to claim that public health workers interfere with their practices, regulations, make things hard for them, they steal their work, their money, lessen disease and hurt their practices.

"For these groups, who misrepresent both health departments, other public health organizations, and practicing physicians and disgrace themselves, we must turn aside and do some missionary work, educate them out of their gilt-lined rut, especially those who are destructively vocal. To physicians we can easily demonstrate that the more diligently and faithfully and unselfishly we work for others, the greater the emolument—depending of course somewhat upon the chosen field of work and upon the way the word 'emolument' is defined. We dare to presume that it is much the same with the comparable successes of health workers. Worth is acknowledged proportionately if not adequately. If we are not successful in our efforts at reformation, how about giving these black sheep a very icy shoulder and studied inattention on all occasions when they are 'looking for something good.' They do not belong in our ranks."

PHYSICIANS AND LOCATIONS

The Missouri State Medical Association is attempting to assist its members, and especially young physicians, in finding locations. According to an editorial in the *Journal of the Missouri State Medical Association* (34: 429 [Nov.] 1937), it is believed that there are a number of communities that do not have sufficient medical care or have come to depend on cultists in case of illness. The association is attempting to meet this problem by acting as a clearing house through which communities in need of a physician and physicians desiring a location may obtain contact. Several physicians have already been aided in selecting locations, and it is urged that all members of the association report possible openings and also names of physicians who desire a location.

INCREASED HOSPITAL WAGES

As a result of a threatened strike, a board of arbitration in Seattle has awarded substantial increases in wages to hospital employees. This raise applies not only to the members of the Building Service Employees International Union, which is the organization represented, but also to nurses, office help and laboratory workers. It is estimated that the payroll will be increased $150,000 a year for 1,400 hospital employees, beginning October 15, when the increases went into effect. As a result, the hospitals have increased charges to patients approximately 75 cents a day per bed. The award also includes provisions for a forty-eight hour week and for calculating the cash value of board and room when these are furnished to employees.

CENTURY-OLD FEE SCHEDULE

The Ohio legislature at its session of 1836-1837 granted a charter to "The Lebanon Medical Society." One of the first acts of this society was to draw up a fee table, which is published in the *Ohio State Medical Journal* (33: 1130 [Oct.] 1937), from which the following items are taken:

Operations for hernia	$ 50.00	Mileage, first mile	$ 1.00
Tonsils, each	25.00	Mileage, second mile	.50
Amputation of arm, thigh, leg, foot, metatarsal bones, each	25.00	Each subsequent mile	.25
Shoulder joint	50.00	Advice and prescription, first	1.00
Hip joint	100.00	Each subsequent	.50
Luxations, reducing:		Prescription in each additional case, in a family	.50
Common	5.00	Common cases of parturition	5.00
Elbow	10.00	Protracted or difficult	5.00 to 20.00
Hip	20.00	Consultation visit in town, first	5.00
Fractures:		Each subsequent	1.00
Of the arm, leg, clavicle, each	5.00	Country consultations, the foregoing prices with addition for mileage.	
Femur	10.00	At night these prices to be increased 50 per cent.	
Neck of femur	20.00	All prices exclusive of medicines.	
For visit, in town, first each	1.00		
Subsequent	.50		
Out of corporation but less than one mile	1.00		

Index numbers of prices for this period are not accepted as having a high degree of accuracy, but there is little doubt that the purchasing power of money at this time was at least 100 per cent greater than in 1937.

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